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1940

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Original Grand Rapids
Forcing Lettuce
Washington Strain



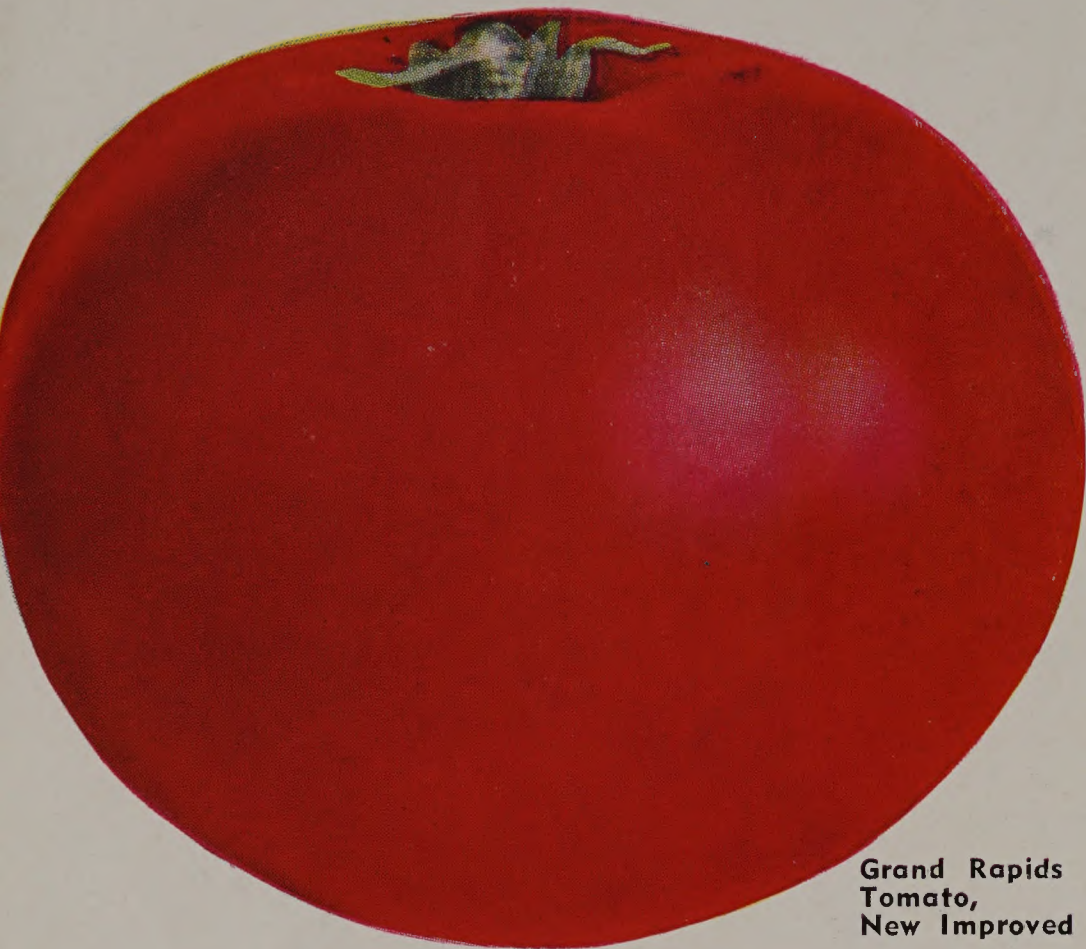
Michigan State
Forcing Tomato

Grand Rapids Growers, Inc.

401-431
Ionia Ave.
S. W.

**SEED
MERCHANTS**

GRAND RAPIDS, MICH.



Grand Rapids
Tomato,
New Improved

GRAND RAPIDS FORCING TOMATO

New. Improved. Select Growers strain. It's new and improved and is one of the best forcing Tomatoes on the market today. Full description will be found on page 26. **Price, oz., 50c; ¼ lb., \$2.00; ½ lb., \$3.50, postpaid.**



Grand Rapids Forcing Radishes

MICHIGAN STATE FORCING TOMATO

A new and distinctly different, self-pollinating, wilt-resistant greenhouse Tomato developed at the Michigan State College. This past season it has found its place at the top of all others, as all growers reported "a wonderful Tomato." Vigorous grower and a heavy setter. Full description will be found on page 26. **Oz., 75c; ¼ lb., \$2.50; ½ lb., \$4.50, postpaid.**

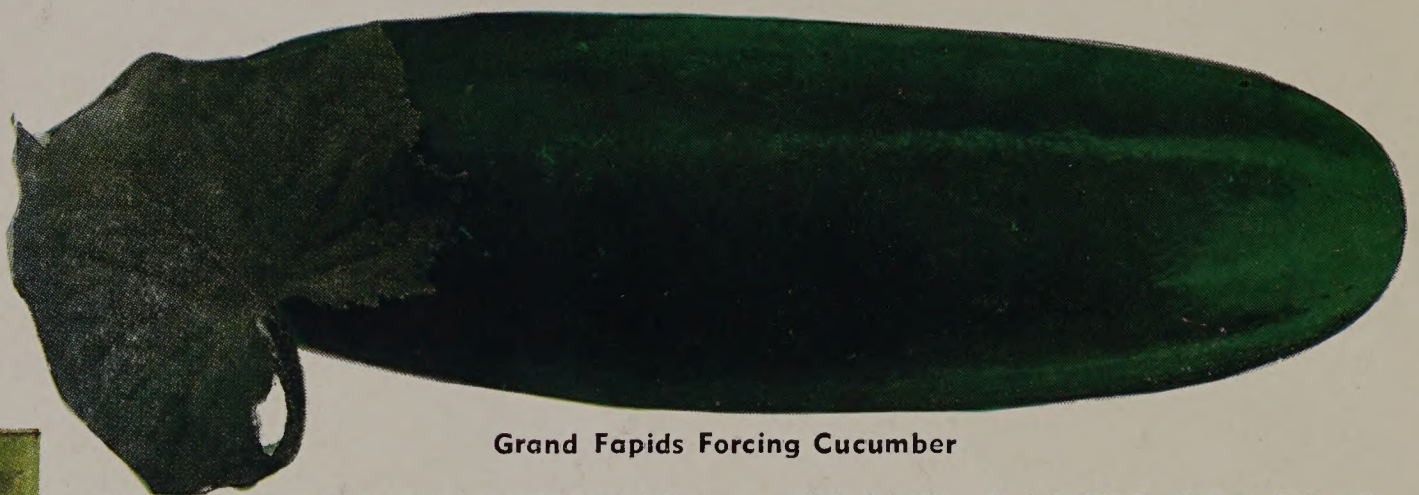
GRAND RAPIDS GROWERS, Inc.

GRAND RAPIDS, MICHIGAN

Forcing Varieties

The Grand Rapids Forcing varieties listed on this page have their origin in Grand Rapids, from whence they derive their name, and are the most dependable seeds for greenhouse crops. They are used in all parts of the country by the best and largest growers in the business. Many of the State colleges will recommend their superiority as well as agricultural journals and national magazines.

If you are not familiar with these varieties, give us a trial order and get acquainted with their merits. Below we give you a partial description, with complete text found in the pages of this catalog. We have appreciated a nice business on our forcing varieties and an order from you will be filled on the same day received.



Grand Rapids Forcing Cucumber

GRAND RAPIDS FORCING CUCUMBER

Improved strain. New. A white spine selection, medium sized with blunt end, averaging 10 to 12 inches in length. An ideal forcing variety. Full description will be found on page 13. **Price, oz., \$1.25; ¼ lb., \$3.50; 1 lb., \$12.00, postpaid.**

GRAND RAPIDS FORCING RADISH

New Improved. The best greenhouse variety and the earliest of the Scarlet Globe type, and superior in every way for greenhouse forcing. With the shortest top. Full description will be found on page 22. **Price, oz., 10c; ¼ lb., 25c; 1 lb., 70c, postpaid.**

GRAND RAPIDS FORCING LETTUCE

(Washington Strain.) A splendid strain. Color a light green, heads very heavy; leaf crisp, tender and curly; quality of the best. Complete description will be found on page 15. **Price, oz., 20c; ¼ lb., 60c; 1 lb., \$2.00, postpaid.**



Michigan
State Forcing
Tomato

PLEASE USE THIS ORDER SHEET

GRAND RAPIDS GROWERS, Inc.

Grand Rapids, Michigan

NAME Date 19

Write very plainly.

Post Office State

**Street, P. O. Box
or Rural Delivery**

Express or Freight Office) If Different from P. O. Forward Goods by
(Parcel Post, Express, Freight or Boat)

AMOUNT ENCLOSED

5%

DISCOUNTS

10%

Money Order \$.....

**If Your Order
Amounts to
\$1.00 or More**

Except on Peas, Beans and Corn

**If Your Order
Amounts to
\$5.00 or More**

Draft or Check \$.....

THIS DISCOUNT APPLIES ON SEED ORDERS ONLY.

Postage Stamps \$.....

ALL OTHER ITEMS ARE NET CASH AS QUOTED.

Cash \$.....

MONEY MUST ACCOMPANY ALL ORDERS.

DISCOUNTS DO NOT APPLY ON CANADIAN ORDERS.

More Order Blanks will be sent upon request. Always write letters on a separate sheet from your order.
Make Money Orders or Checks Payable to Grand Rapids Growers, Inc.

GRAND RAPIDS GROWERS, Inc. Aims to give high quality in all seeds they sell, but can give no warranty, express or implied, as to description, purity, productiveness, and they will not be responsible for the crop; if the purchaser does not accept the goods on these terms, they are to be returned. They also can not guarantee full delivery on future orders as the supply is contingent on factors over which they have no control, such as crop failure, fire, etc.

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IF MORE ORDER BLANKS ARE WANTED, WRITE US AND WE WILL SEND THEM. MAIL ORDERS ARE SOLICITED.

PLEASE CUT OUT ON THIS LINE

ORDER SHEET—Continued

[illegible]

SPECIAL NOTICE:

FREE with your order. Five packets of our choice flower seeds, if you will favor us with five names and addresses of truck or market gardeners in your vicinity. We wish to send them our seed annual.

[illegible]

Grand Rapids Growers, Inc.

Twentieth Annual Seed Catalog

1940

Important

By Carefully Following These Suggestions, Many Mistakes Will Be Avoided

Order Blanks

Order blanks have been inserted in this catalog for your convenience. Please use them. Fill in your NAME, POST OFFICE, SHIPPING POINT or nearest EXPRESS OFFICE, your COUNTY and STATE, as this is as important in the prompt filling of your order as the order itself. Write plainly and avoid mistakes. Additional order blanks are mailed with every order. If you do not receive them, please notify us, and we will be glad to furnish them.

Terms

Our terms are strictly cash and we ask that you enclose your remittance with order. On all vegetables and flower seeds EXCEPT peas, beans, and sweet corn, you may deduct 5% as your savings if your order amounts to \$1.00 or more and 10% on all orders amounting to \$5.00 or more. This offer does not apply on special offer collections, bulbs or plants.

This offer is good only in the U. S. A. and your remittance must accompany your order to entitle you to the discount.

How to Send Money

Remittance should be made by POSTAL MONEY ORDER, EXPRESS MONEY ORDER, BANK DRAFT or CERTIFIED CHECK. It is perfectly safe and your order will be assured of prompt handling. U. S. CURRENCY and U. S. POSTAGE STAMPS for small amounts, are acceptable but in this case the letter should be REGISTERED.

Canadian Customers (Notice)

We are very thankful for the business you have given us in the past and we will continue to give you our very best of service and quality seeds.

Please take special notice that we cannot make C.O.D. shipments to any part of Canada and cannot pay postage on any items of seed in this catalog above the pound rate.

We also ask that you make your remittance in United States funds as the discount on Canadian paper is far in excess of where it was and will not permit us to honor same at face value. You can, however, obtain a bank draft or money order payable in U. S. funds and will ask that you consult your banker or postmaster. Personal checks or currency is not acceptable.

Non-Warranty

The seeds offered in this catalog have been carefully grown, selected, cleaned and tested for germination and we believe them to be first-class, but as so many conditions enter into making a crop, we give no warranty, either express or implied, as to description, purity or productiveness, and will not be responsible for the crop. If the purchaser does not accept the goods on these terms, they are to be returned at once, and the money will be refunded.

While we do not think there will be any serious changes, all prices quoted herein are made subject to change without notice.

Small Orders

Small orders are just as welcome as the larger ones and receive the same careful attention and prompt handling. All orders are filled the same day as received.

Large Quantities

Parties buying large quantities of any one variety of seeds will be quoted special prices on application.

Price of Seeds By Weight

We will supply HALF POUNDS and over at the pound rate; less than half pound lots are charged at the quarter pound and ounce rate.

Safe Delivery

All seeds and supplies sent out by us are fully insured and we guarantee their safe arrival. If there is any damage, notify us immediately.

Postpaid Prices (Important)

We prepay postage on all vegetable and flower seeds in packets, ounces, quarter pounds, half pounds and pounds at the prices quoted herein to any point of the United States or any of its possessions, and Canada, however, we do not pay postage on beans, corn, or peas beyond the "one pound" price; field seeds, onion sets, miscellaneous supplies, or anything that is not specifically listed "postpaid." If such items are wanted by parcel post, add sufficient postage as per Parcel Post Rates given below.

Air Mail

On RUSH ORDERS received by mail or wire for one ounce or more of seed, we will send by air mail if so requested at a nominal charge of 6c PER OUNCE of seed ordered, as the postal rate is 6c for EACH ounce. One ounce of seed would weigh more than one ounce when it is packed ready to mail. Where the mailing weight is less than one ounce, we will pay the postage. This will give you overnight service to almost any point of the United States.

Weight Limit

The weight limit is now 70 lbs. anywhere in the United States, and we advise sending seeds by mail as the service is good; however, on shipments of 20 lbs. and over it is cheaper to send by express, beyond the third zone.

Parcel Post Rates

	1st lb. or Frac- tion	Ea. add. lb. or Fraction
1st Zone, within 50 miles of Grand Rapids.....	8c	1.1c
2nd Zone, within 150 miles of Grand Rapids.....	8c	1.1c
3rd Zone, within 300 miles of Grand Rapids.....	9c	2c
4th Zone, within 600 miles of Grand Rapids.....	10c	3.5c
5th Zone, within 1000 miles of Grand Rapids.....	11c	5.3c
6th Zone, within 1400 miles of Grand Rapids.....	12c	7c
7th Zone, within 1800 miles of Grand Rapids.....	14c	9c
8th Zone, over 1800 miles from Grand Rapids	15c	11c
Canada, all parts	14c	14c

If in doubt obtain your zone rate from your postmaster.

Grand Rapids Growers, Inc.

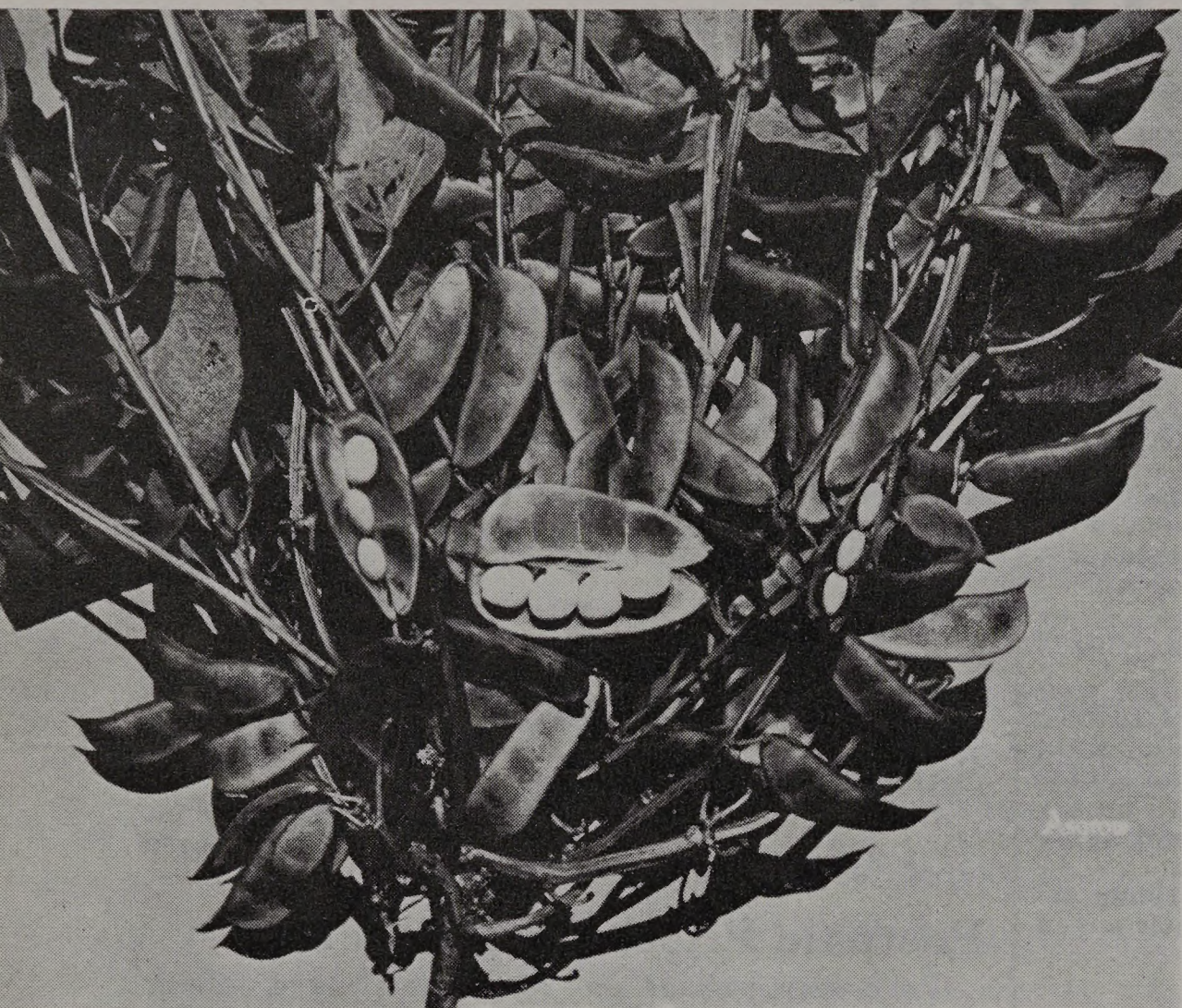
Seed Merchants

Cor. Wealthy and
Ionia Ave., S.W. Phone 97216.

Grand Rapids, Mich.

New Varieties for 1940 ~

WORTHY OF A PLACE IN ANY MARKET



Baby Potato Lima Bean

ALL-AMERICA SELECTIONS

BABY POTATO LIMA BEANS

A prolific bush lima bean originated as a field cross between Henderson's Bush Lima and one of the potato lima types.

In vine character and general appearance of pods is similar to Henderson's Bush, although it is a thriftier and more robust plant and can be handled by the same cultural methods. The seeds are small but thick, of bright green color when fresh, and similar in flavor to Fordhook. Admirably adapted not only for produce markets, but also for canning and quick freezing. Lb., 35c, postpaid. Not prepaid, 10 lbs., \$3.00; 25 lbs., \$6.00.

IOANA HYBRID SWEET CORN

A midseason yellow hybrid, highly resistant to both drought and wilt. Plants tall and sturdy with broad and numerous leaves. Ears 7½-8" long, 12-14 rows, cylindrical, well filled with medium narrow light yellow kernels. An attractive and productive variety suitable for either gardener or canner. Lb., 45c, postpaid. Not prepaid, 10 lbs., \$4.00; 25 lbs., \$8.75.

Other new varieties listed in the pages of this catalog.

BEANS - IMPROVED BLACK VALENTINE

1 lb., 25c, postpaid. Not prepaid, 10 lbs., \$2.00; 25 lbs., \$3.50; 50 lbs., \$6.75. See page 6.

CELERY - GROWER'S EPICURE

An early green celery. Oz., \$1.50; ¼ lb., \$5.50; 1 lb., \$20.00, postpaid. See page 9.

CELERY - EARLIGREEN

Really an early green celery. ¼ oz., \$1.25; ½ oz., \$2.00; 1 oz., \$3.50; ¼ lb., \$10.00. See page 9.

LETTUCE - IMPERIAL 847

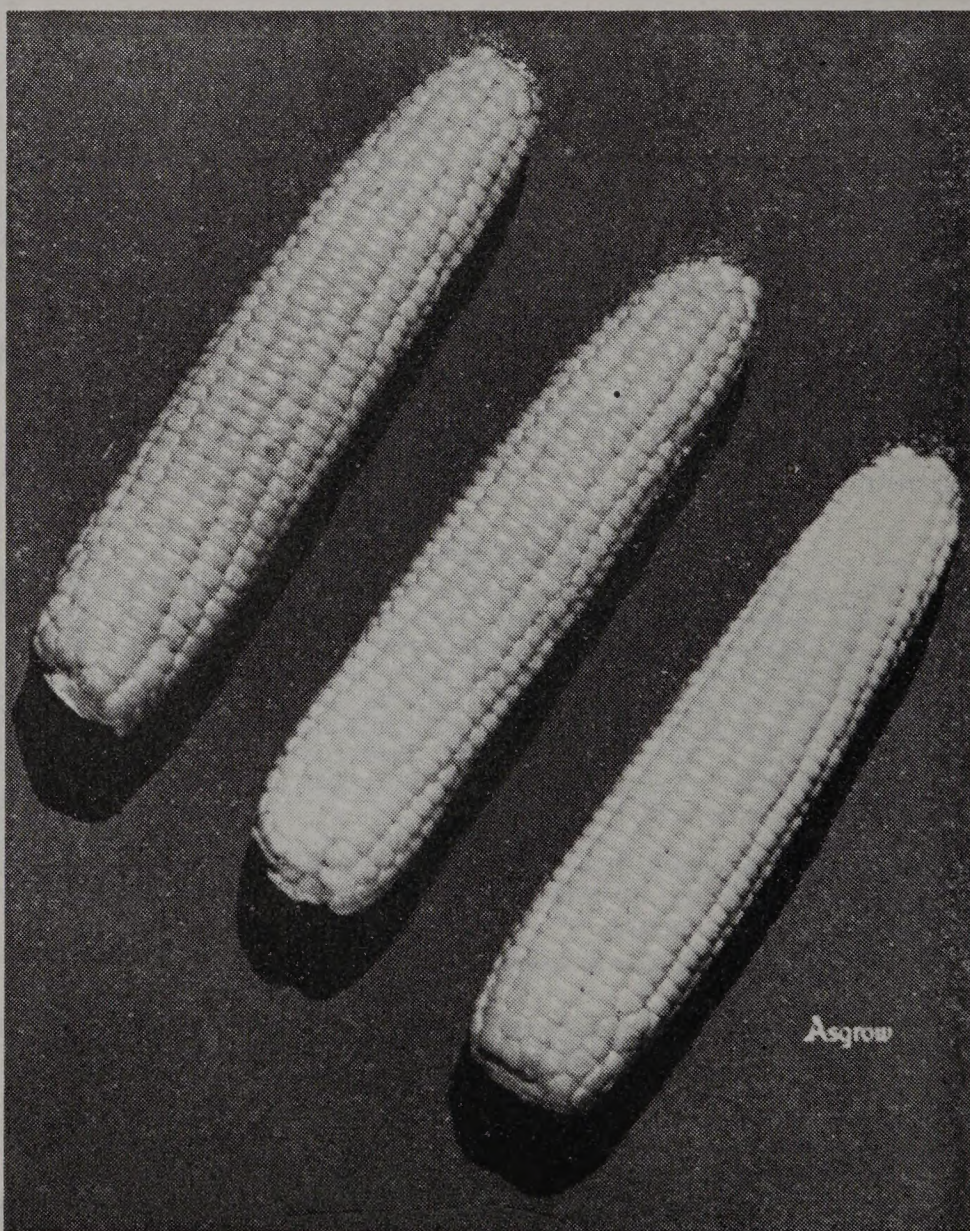
Oz., 20c; ¼ lb., 60c; 1 lb., \$2.00, postpaid. See page 15.

LETTUCE - IMPERIAL 44

Oz., 20c; ¼ lb., 60c; 1 lb., \$2.00, postpaid. See page 15.

SPINACH - VIKING

Oz., 10c; ¼ lb., 15c; 1 lb., 30c, postpaid. Not prepaid, 10 lbs., \$2.25; 25 lbs., \$5.00. See page 24.



Ioana Hybrid Sweet Corn

Asparagus

CULTURAL DIRECTIONS. One-half ounce of seed will sow 50 feet of drill and produce about 500 plants. Drill the seed in rows about twenty-four inches apart, covering seed one inch. Cultivate well, keep free from weeds and they should be all right to transplant to permanent beds the following spring. Do not cut the plants till the third year. Every fall before the seed is ripe, cut tops and burn them, and give good top dressing of manure. Remember, the bed well planted will last for at least twenty years. Treat it well.

★ **Mary Washington Rust-Resistant Asparagus** The largest and most tender green Asparagus. This is a decided improvement due to the untiring efforts of Prof. J. B. Norton, member of the Plant Breeding Staff of the U. S. Dept. of Agriculture. Oz., 15c; ¼ lb., 35c; 1 lb., \$1.15, postpaid.

Martha Washington (Pedigreed). The original rust-resistant type. A heavy yielding variety with long, thick, heavy stalks, closely folded at the tips; color rich, dark green. Oz., 10c; ¼ lb., 30c; 1 lb., \$1.00, postpaid.

Palmetto An early maturing and prolific variety with thick dark green shoots, distinctly pointed at the tip. A popular canning variety. Oz., 10c; ¼ lb., 30c; 1 lb., \$1.00, postpaid.

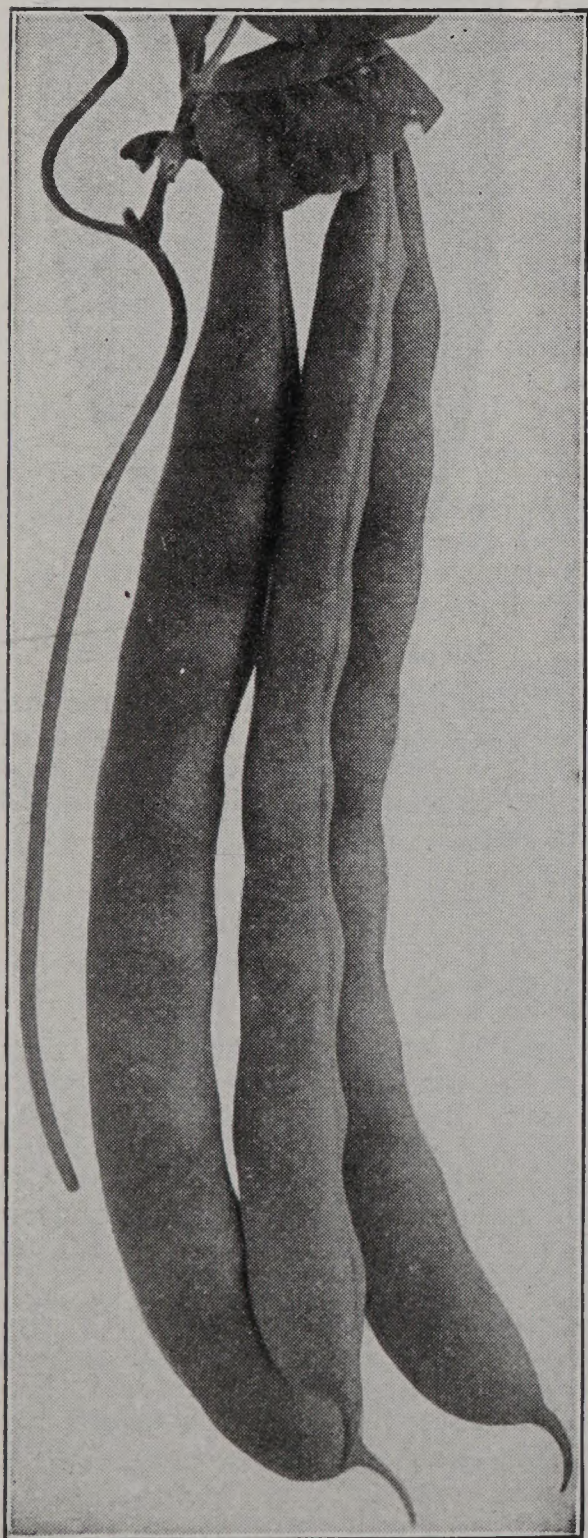
Asparagus Roots

We have the Palmetto and Mary Washington Rust-Resistant Asparagus Roots, every spring, and as we only handle the very best two-year roots, that are locally grown, we will ask that you write us for prices in whatever quantity you may want.

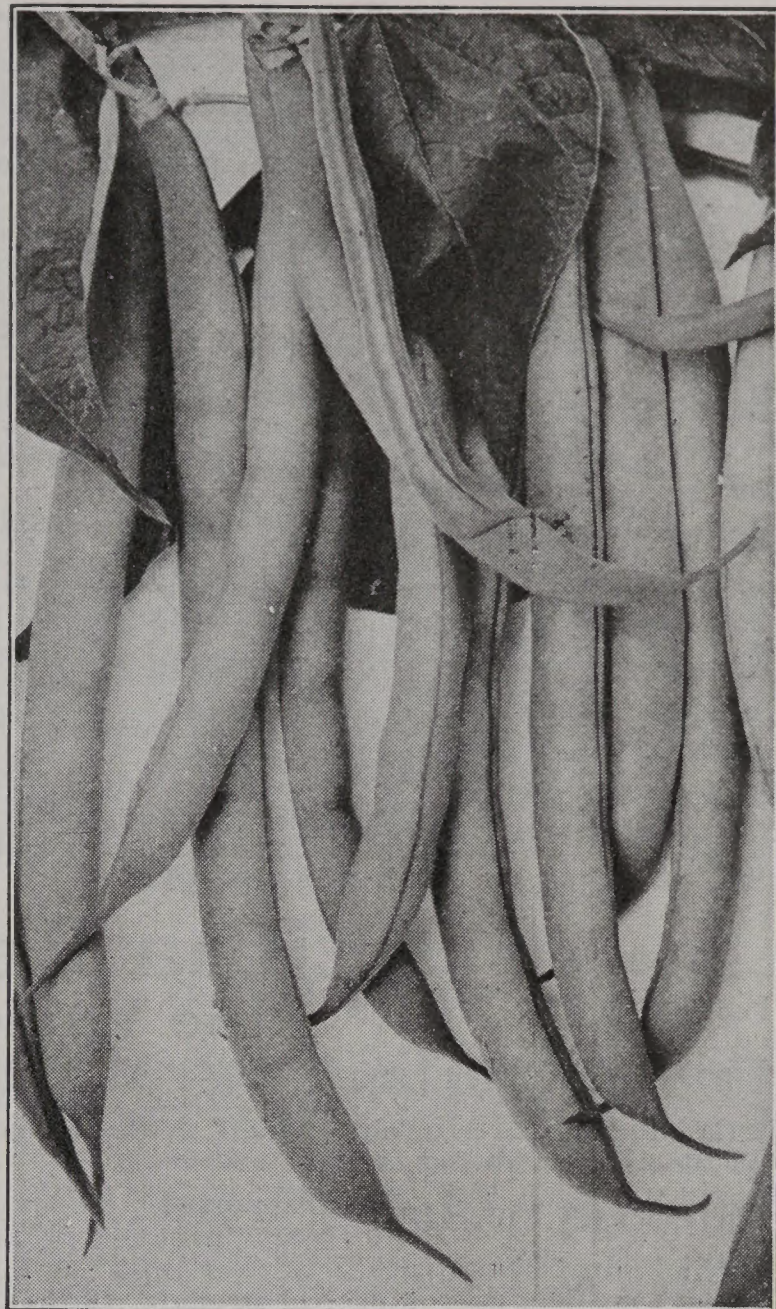
Beans

CULTURAL DIRECTIONS. One pound to 100 feet of drill; about three-fourths bushel per acre of Bush Beans. Beans thrive on a rich, warm, light soil. It is not safe to plant until about the middle of May

as the seed will rot in cold, wet ground, and the plants will not stand frost. Plant dwarf beans in rows two feet apart and from four to six inches apart in the rows. Lima Beans should not be planted until June first, when the soil is thoroughly warmed through. Limas will rot in cold ground.



Landreth Stringless Green Pod



Pencil Pod Black Wax

Wax Podded Varieties

★ **Pencil Pod Black Wax** 52 days. Pods are round, very long, tender, and entirely stringless. Extremely productive. Best market gardeners' sort. 1 lb., 25c, postpaid. Not prepaid, 10 lbs., \$2.00; 25 lbs., \$3.50; 50 lbs., \$6.75.

★ **Unrivalled Wax Beans** 53 days. Small plant, very early and great yielder. Pods about 5½ inches long. Somewhat curved, semi-flat, fleshy and very tender and stringless. Color pale yellow. 1 lb., 25c, postpaid. Not prepaid, 10 lbs., \$2.00; 25 lbs., \$3.50; 50 lbs., \$6.75.

Improved Golden Wax 48 days. One of the earliest dwarf wax sorts. Pods flat, long, beautiful golden yellow, tender and stringless. 1 lb., 25c, postpaid. Not prepaid, 10 lbs., \$2.00; 25 lbs., \$3.50; 50 lbs., \$6.75.

Davis Kidney Wax 52 days. Seed white, pods very long, flat, straight, white, waxlike, and very attractive. If picked when young, the pods are tender and stringless but if left too long become rather hard. Extremely productive. 1 lb., 25c, postpaid. Not prepaid, 10 lbs., \$2.00; 25 lbs., \$3.50; 50 lbs., \$6.75.

Green Podded Varieties

Landreth Stringless Green Pod 54 days. An improvement of Burpee's Stringless Green Pod. Vine is more erect, with darker foliage and a longer, slimmer pod. Pods 6 to 8 inches long, slightly curved, meaty, and absolutely stringless. Undoubtedly the best round-podded bean on the market today. Very prolific and an ideal variety for the home garden, market gardeners and canners. 1 lb., 25c, postpaid. Not prepaid, 10 lbs., \$2.00; 25 lbs., \$3.50; 50 lbs., \$6.75.

★ **Tendergreen** 54 days. A new introduction, and now one of the most popular green beans. Hardy; dependable cropper, medium large, dark green and stringless. 1 lb., 25c, postpaid. Not prepaid, 10 lbs., \$2.00; 25 lbs., \$3.50; 50 lbs., \$6.75.

★ **Burpee's Stringless Green Pod** 53 days. A very desirable dwarf, green-podded sort for either home garden or market. Pods 5 to 6 inches long, thick, fleshy, perfectly stringless. Tender and delicious. 1 lb., 25c, postpaid. Not prepaid, 10 lbs., \$2.00; 25 lbs., \$3.50; 50 lbs., \$6.75.

Green Podded Varieties—Cont.

Improved Black Valentine Well adapted for market garden use and for early shipping. Plant large, erect, prolific. Very attractive, oval pods, nearly straight, dark green, strictly stringless and of fine quality and delicate flavor. 1 lb., 25c, postpaid. Not prepaid, 10 lbs., \$2.00; 25 lbs., \$3.50; 50 lbs., \$6.75.

★ **Giant Stringless Green Pod** 53 days. Similar to Burpee's Stringless but pods are a little longer, straighter and more slender, more depressed between beans and slightly lighter in color; early, hardy and of highest quality. 1 lb., 25c, postpaid. Not prepaid, 10 lbs., \$2.00; 25 lbs., \$3.50; 50 lbs., \$6.75.

Bountiful 48 days. Best of the flat-podded varieties. Pods 6½ to 7 inches long, thick, flat and slightly curved. Stringless and of fine quality, color light green. 1 lb., 25c, postpaid. Not prepaid, 10 lbs., \$2.00; 25 lbs., \$3.50; 50 lbs., \$6.75.

Refugee or 1000 to 1 70 days. A very productive, hardy, vigorous late sort. Pods 5 to 5½ inches long, somewhat slender, round and slightly curved, almost stringless and of good quality; color light green. 1 lb., 25c, postpaid. Not prepaid, 10 lbs., \$2.00; 25 lbs., \$3.50; 50 lbs., \$6.75.

Kentucky Wonder or Old Homestead 65 days. The most popular green-podded, climbing Bean; early and productive. Pods 8 to 9 inches long, very slender. 1 lb., 25c, postpaid. Not prepaid, 10 lbs., \$2.00; 25 lbs., \$3.50; 50 lbs., \$6.75.

Dutch Case Knife (Snijboonen). 65 days. Pole Bean. Green snap pods, 7 to 8 inches long, straight, flat, brittle, of good quality; best as a shell bean. Beans very flat, ivory-white. 1 lb., 30c, postpaid. Not prepaid, 10 lbs., \$2.25; 25 lbs., \$4.25; 50 lbs., \$8.00.

Lima Beans Pole Varieties

King of the Garden Lima 88 days. An improved strain, vigorous, midseason, productive. Pods 5 to 6 inches long, very flat and wide, and uniformly four-seeded. 1 lb., 30c, postpaid. Not prepaid, 10 lbs., \$2.50; 25 lbs., \$4.75; 50 lbs., \$9.00.

Early Jersey Pole Lima (Sieberts). 80 days. An early midseason variety. Very productive and highest quality. Pods 5 to 6 inches long; beans rather thicker than the King of the Garden, but of the same type. 1 lb., 30c, postpaid. Not prepaid, 10 lbs., \$2.75; 25 lbs., \$5.25; 50 lbs., \$10.00.

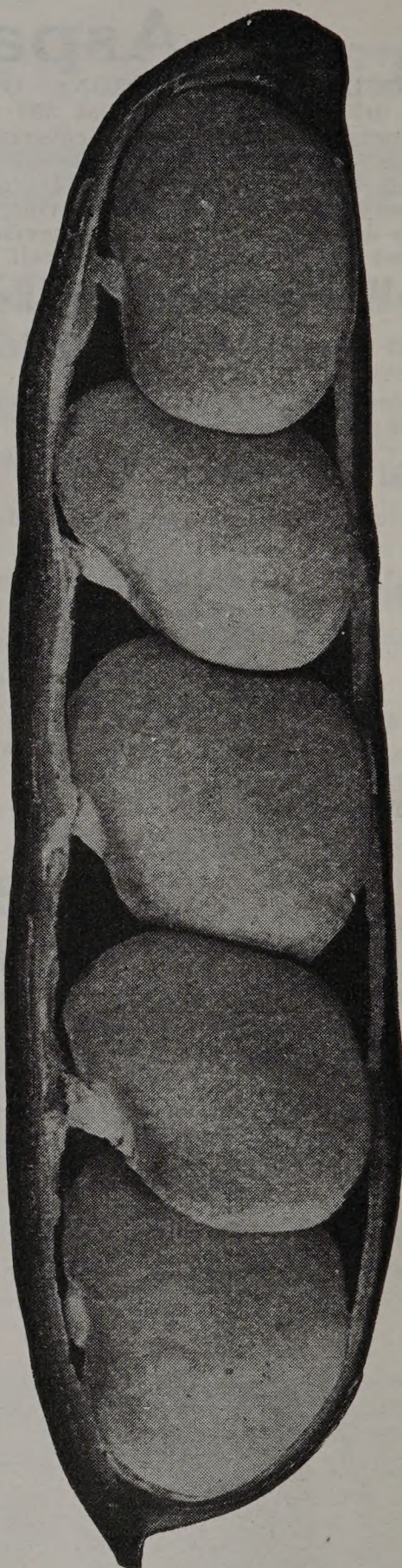
Dwarf or Bush Varieties

Burpee's Improved Bush Lima 75 days. Both beans and pods are larger than the old type. The pods measure 5 to 6 inches long by 1¼ inches wide and are of a luscious flavor. They are frequently borne in clusters of from 5 to 8 pods. 1 lb., 30c, postpaid. Not prepaid, 10 lbs., \$2.75; 25 lbs., \$5.25; 50 lbs., \$10.00.

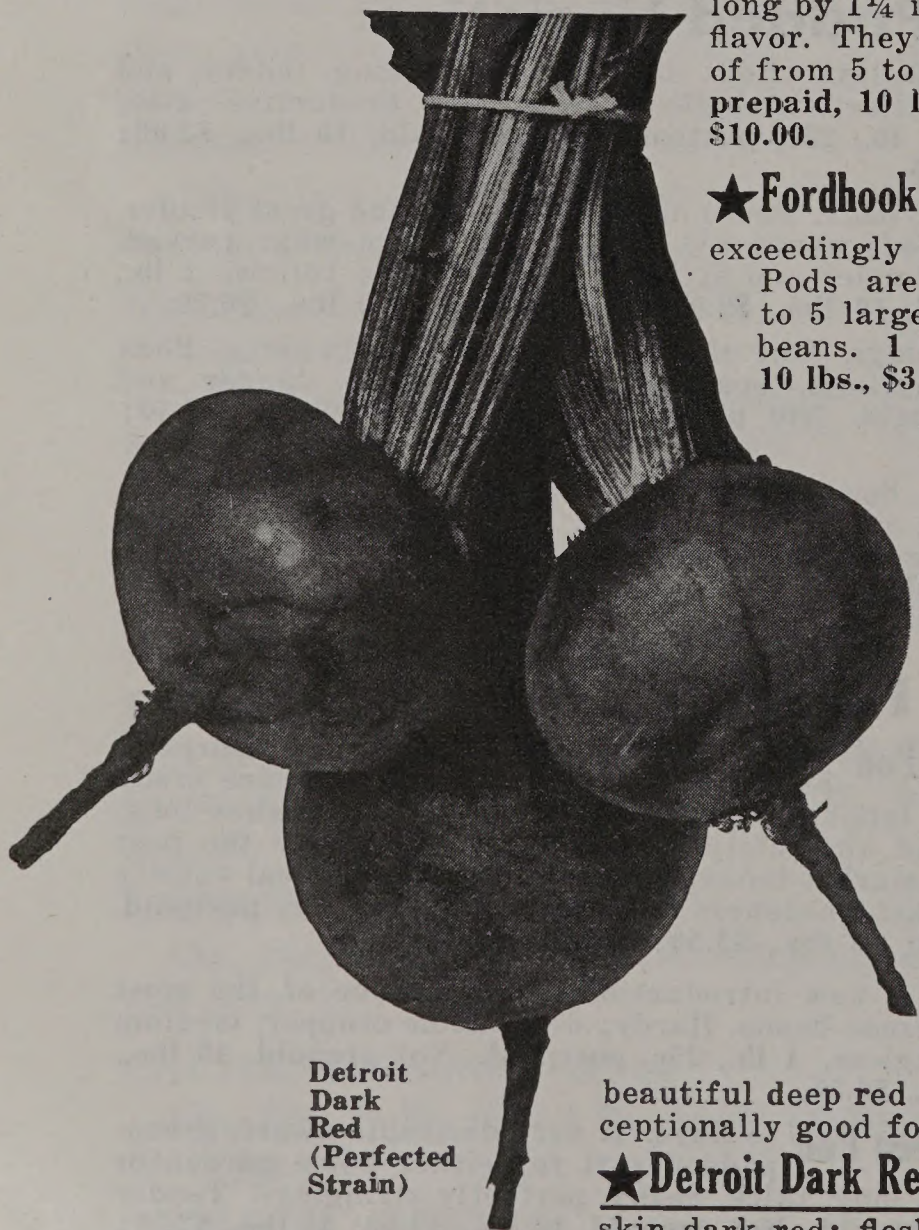
★ **Fordhook Bush Lima** 75 days. A most excellent variety and exceedingly popular with market gardeners. Pods are about 5 inches long, containing 4 to 5 large, oval-shaped, very thick, white beans. 1 lb., 35c, postpaid. Not prepaid, 10 lbs., \$3.00; 25 lbs., \$6.00; 50 lbs., \$11.50.

★ **Henderson Bush Lima** (Baby Lima). 65 days. A vigorous, hardy, very early and small type of Bush Lima. Pods small, about 3 inches long, containing 3 to 4 small, flat, white beans. 1 lb., 25c, postpaid. Not prepaid, 10 lbs., \$2.00; 25 lbs., \$3.50; 50 lbs., \$6.75.

Baby Potato Lima See page 4.



Burpee's Improved Bush Lima



Detroit
Dark
Red
(Perfected
Strain)

Beets

Cultural Directions. One ounce to fifty feet of drill; six to eight pounds per acre. Do not use stable manure if you want smooth Beets with but few roots. Beets thrive on deep, rich, sandy land. For early crop sow in drills one foot apart, cover seed one inch. Sow as early as the ground can be worked in the spring. When plants are large enough to use as greens, thin to three inches apart in the row. Beets can be sown as late as July for main crop.

★ **Early Wonder** 50 to 55 days. An early variety. It is turnip-shaped and is always smooth. The flesh is a beautiful deep red color and is of excellent quality. Tops are small and erect. Exceptionally good for early bunching. Oz., 10c; ¼ lb., 25c; 1 lb., 75c, postpaid.

★ **Detroit Dark Red** (Perfected Strain). 52 to 55 days. The best for market garden or home use. Roots smooth, medium size, globe-shaped; skin dark red; flesh solid vermilion-red. Tops small, upright, dark green, shaded red. Oz., 10c; ¼ lb., 25c; 1 lb., 75c, postpaid.

★ This variety recommended by the Michigan State College.

BEETS—Continued

Crosby's Egyptian 50-55 days. Where an early market sort is desired, our strain is unequalled. Roots a flattened globe shape, skin very dark red, flesh a trifle lighter, tops small. Oz., 10c; ¼ lb., 25c; 1 lb., 75c, postpaid.

Eclipse An early variety with small tops and medium sized, round, clear red roots; flesh bright red. Oz., 10c; ¼ lb., 25c; 1 lb., 75c, postpaid.

Early Blood Turnip, Improved 50-55 days. The old standard table Beet. Roots nearly round or slightly flattened, bright red, zoned and of good quality. Not so early as Detroit, but with a larger, coarser top. Oz., 10c; ¼ lb., 25c; 1 lb., 75c, postpaid.

Good For All 52-55 days. New. The most refined and distinct Beet grown. Deep dark red with short tops, good keeper and excellent shipper. Interior deep crimson, and free from growth rings. Every market gardener should try this new variety. Oz., 10c; ¼ lb., 20c; 1 lb., 60c, postpaid.

Mangel or Stock Beets

CULTURAL DIRECTIONS. One ounce to fifty feet of drill, five pounds per acre. Sow early in the spring, in rows about two feet apart; cover seed one and one-half inches deep, pressing the ground firmly over the seed. When plants are three inches high thin to about eight inches apart in the row. The plants pulled may be used for greens.

Mammoth Long Red A favorite with the dairy-man and farmer. Large, well formed; dark red color, very nutritious; a big cropper. Oz., 10c; ¼ lb., 20c; 1 lb., 60c, postpaid.

Golden Tankard Very productive and sweet; tops and neck very small, flesh yellow, especially relished by cows and sheep. Oz., 10c; ¼ lb., 20c; 1 lb., 60c, postpaid.

Sugar Beets

Sugar Beets and Mangels are of great value for stock feeding, because of the improved health and condition of the animals, increased flow and quality of milk, and because of the saving in fodder. The yield is enormous, and the cost of growing is trifling. Grow a patch of them for Winter feed. They are also excellent for poultry.

Klein Wanzleben The most desirable Beet for sugar manufacture; valuable for stock feeding. Roots medium large, very rich in sugar content, good keeper. Oz., 10c; ¼ lb., 20c; 1 lb., 60c, postpaid.

Giant Feeding Sugar A most valuable, large yielding variety for feeding; half sugar, oval-shaped, skin rose colored, flesh white, very nutritious and easily harvested. Oz., 10c; ¼ lb., 20c; 1 lb., 60c, postpaid.



Italian Green Sprouting Broccoli

Broccoli

Italian Green Sprouting 115 days. This variety produces a large head, like cauliflower, consisting of a compact cluster of bluish green flowers. When the central head is removed, the plant produces many branches, each bearing small heads. These are cut with 3 or 4 inches of the branch attached and tied in bunches for market. The stems as well as the flower heads are cooked and served as cauliflower. Oz., 45c; ¼ lb., \$1.40; 1 lb., \$4.50, postpaid.

Cabbage

CULTURAL DIRECTIONS. One ounce will produce about 2,000 plants; 10,890 plants will plant an acre of early cabbage; and 7,260 plants for an acre of late. Three ounces of seed will plant an acre of early and five ounces an acre of late cabbage. For early cabbage, sow seed in hotbeds in January or February. Transplant as early as possible to the open ground about two feet apart each way. For late cabbage, sow seed in the open ground in May and transplant about July first in rows 2½ feet each way.

Early Varieties

Earliest of All 60 days. A new Danish introduction of the Copenhagen type, heads are perfectly round, solid and of uniform size. Fully 7 to 12 days earlier than Jersey Wakefield. Average about 4 lbs. each. Oz., 25c; ¼ lb., 75c; 1 lb., \$2.50, postpaid.

★ **Golden Acre** 62 days. Heads round, very hard. Matures two or three weeks earlier than Copenhagen Market, but is otherwise quite similar. Owing to earliness and remarkable uniformity, Golden Acre will prove the most profitable early Cabbage for market gardeners. Oz., 20c; ¼ lb., 60c; 1 lb., \$2.25, postpaid.

Early Jersey Wakefield 65 days. Market gardeners in general consider this the best early variety. The conical heads are very uniform in shape and very solid. Our stock is dwarf, compact and extremely early. Oz., 20c; ¼ lb., 60c; 1 lb., \$2.00, postpaid.

Improved Copenhagen Market 65 days. Nearly as early as the Jersey Wakefield. Stems short, heads large, round and solid, with few outer leaves. Oz., 20c; ¼ lb., 60c; 1 lb., \$2.00, postpaid.



Danish Ballhead

★ This variety recommended by the Michigan State College.

Late Varieties



Golden Acre Yellow's Resistant

★ Danish Ballhead

100 days. Short-stemmed, heads round, very solid and heavy. Splendid keeper, hardy, and the best winter sort. Oz., 20c; ¼ lb., 60c; 1 lb., \$2.00, postpaid.

All Seasons

88 days. Heads large, round and very deep; can be planted for early or late crop. Good keeper. Oz., 20c; ¼ lb., 60c; 1 lb., \$2.00, postpaid.

Surehead

100 days. All sure to head. Late Cabbage of the flat Dutch type; a splendid keeper. Oz., 20c; ¼ lb., 60c; 1 lb., \$2.00, postpaid.

★ Penn State Ballhead

100 days. A heavy yielding strain of the short stem Danish Ballhead type. Originated by Pennsylvania State College. Yields as high as twenty-six tons per acre have been recorded. Oz., 20c; ¼ lb., 75c; 1 lb., \$2.50, postpaid.

Premium Flat Dutch

105 days. Highly valued for its fine quality. Heads very solid, broad, round, flattened on top, fine grained and tender. Oz., 20c; ¼ lb., 60c; 1 lb., \$2.00, postpaid.

Glory of Enkhuizen

80 days. Excellent, medium early, short-stemmed, heads large, round and very long keeping variety. Oz., 20c; ¼ lb., 60c; 1 lb., \$2.00, postpaid.

American Savoy

85 days. Large, flattish heads, very curly and hard. One of the best Savoys. Oz., 20c; ¼ lb., 60c; 1 lb., postpaid, \$2.00.

Mammoth Rock Red

90 days. Heads solid, of good size and quality. Oz., 25c; ¼ lb., 75c; 1 lb., postpaid, \$2.25.

Red Stone Head

110 days. A new Danish introduction and exceptionally good, forming big uniformly round heads, smooth, hard, of a glowing dark red color. A good keeper that will last long into the winter, when fully matured. Oz., 20c; ¼ lb., 75c; 1 lb., \$2.50, postpaid.

YELLOW'S-DISEASE-RESISTANT VARIETIES

★ Yellow's Resistant Golden Acre

62 days. This strain can be grown successfully on soil infested with yellows. Can be cut just as early as the standard variety, and has a similar yield. Oz., 20c; ¼ lb., 80c; 1 lb., \$3.00, postpaid.

★ Wisconsin Hollander No. 8

(Yellows-resistant). 90-100 days. A heavy yielding late storage type, highly resistant to yellows. Round head, and yields greater tonnage than the ordinary strains. Oz., 20c; ¼ lb., 75c; 1 lb., \$2.50, postpaid.

★ Marion Market

75 days. A yellows-resistant strain of Copenhagen Market. Round head and crisp tenderness of the parent cabbage. Principally adapted on yellows infested soils where non-resistant strains fail completely. Oz., 25c; ¼ lb., 80c; 1 lb., \$3.00, postpaid.

Brussels Sprouts

The culture is the same as for cabbage which it resembles. The edible part being the small heads, an inch or two in diameter that form at each leaf joint all the way up the stalk. The leaves should be broken off in the fall to give more room for the little heads to grow. Delicious and more tender than any cabbage. 90 days. Half-dwarf. Oz., 20c; ¼ lb., 60c; 1 lb., \$2.00, postpaid.

Celery Cabbage or Chihili

CULTURAL DIRECTIONS. One ounce will produce 2,000 plants. Do not sow seed till the last of May, as earlier sowing generally going to seed instead of making heads. Seed may be sown in seed beds and transplanted in rows three feet apart and about fifteen inches apart in the row, or may be sown in rows and thinned.

★ Chihili

It has a delicate cabbage flavor, much milder than cabbage. The heads are long, about 16 inches, rather slim, coming to a point at the top. Color a very thick dark bluish green, with the inner leaves and stalks blanched to a beautiful snow-white. Oz., 15c; ¼ lb., 50c; 1 lb., \$1.25, postpaid.

Swiss Chard

CULTURAL DIRECTIONS. One ounce to fifty feet of drill; five pounds per acre. Sow early in the spring, in rows eighteen inches apart and thin to one foot apart. The plants are of every rank growth, and will continue to grow and produce all summer and if given a little protection during the winter, will produce early greens in the spring.

Lucullus

55 days. Leaves large and curly. Plant grows about 2 feet high, mid-ribs are very broad and are a good substitute for asparagus during the summer months. Oz., 10c; ¼ lb., 20c; 1 lb., 60c, postpaid.



Chihili Celery Cabbage

Celery

CULTURAL DIRECTIONS. One ounce will produce from 5,000 to 10,000 plants. Two ounces per acre. Muck soil is best for Celery, but good Celery may be grown on rich, loamy soil if water can be applied freely. Celery needs manure and fertilizer.

YELLOW VARIETIES

New Golden Self Blanching New type, grown in FRANCE. It has a long stalk and is commonly called "TALL STRAIN." It makes a magnificent growth of tall, broad, flat stalks of a lighter shade of yellow. The leading variety grown today, and it can be grown for either an early or late crop, as it bleaches very easily in either boards or dirt, and is superior for storage and trenching, for its long keeping qualities. Oz., \$1.00; ¼ lb., \$3.00; 1 lb., \$10.00, postpaid.

Superplume or Improved Golden Plume In appearance it belongs in the dwarf Golden Plume class. Tops are distinct, abundant, light green with very broad rounded leaflets. It has thick, larger, meatier stems with better quality. It is earlier and with the ease of blanching will stand longer without becoming pithy. The edible portion of the stem is usually 7 to 9 inches to the first joint. Texture is remarkably good, very firm, yet crisp and comparatively free from strings. Oz., \$1.00; ¼ lb., \$3.00; 1 lb., \$10.00, postpaid.

Golden Plume (Simon's). An early Yellow Celery. We do not recommend this for storage. Oz., \$1.00; ¼ lb., \$3.00; 1 lb., \$10.00, postpaid.

Growers Wonderful Celery A valuable early variety similar to the Golden Plume. The plants are semi-dwarf, very vigorous, and have a very full heart which bleaches quickly to a golden yellow color. An excellent sort for market gardeners. Oz., \$1.00; ¼ lb., \$3.00; 1 lb., \$10.00, postpaid.

Kilgore's Pride (105 days). A very early marketing variety, producing a vigorous growth. Broad, thick-ribbed, 8 to 10 inches to the first joint and averaging 25 inches over all, making the tops come well over the top of the crate. Heavy heart and a very heavy yielder. This variety is similar to our New Golden (with heavier stalk). Oz., \$1.50; ¼ lb., \$5.50; 1 lb., \$20.00, postpaid.

Old Golden Self blanching dwarf. An old standard market and shipping variety. Oz., 60c; ¼ lb., \$2.25; 1 lb., \$8.00, postpaid.

Non-Bolting Golden Plume Oz., \$1.50; ¼ lb., \$5.50; 1 lb., \$20.00, postpaid.

Florida Golden Oz., \$1.00; ¼ lb., \$3.00; 1 lb., \$10.00, postpaid.

GREEN VARIETIES

Growers Epicure One of the earliest green celery varieties now in use. The height under varying conditions averages 24 to 26 inches. The tops are medium light bright green. The foliage is erect and compact; the leaves large and rounded. The edible stems are 8 to 10 inches to the first joint, broad, thick and smoothly rounded. The outer stems blanch to very pale green, the inner stems becoming creamy white. The hearts are full, of good length and blanch to deep cream. The stems are firm, crisp and free from strings. In several tests it has been highly resistant to fusarium yellows. Oz., \$1.50; ¼ lb., \$5.50; 1 lb., \$20.00, postpaid.

Full Heart It is an improvement, and similar to Easy Blanching. Is a more vigorous grower and fuller hearted, short with a fairly thick leaf stalk. Anyone who has grown the Easy Blanching in the past will be pleased with this improved strain. Oz., \$1.50; ¼ lb., \$5.00; 1 lb., \$18.00, postpaid.

Pride of the Market A dwarf, thick-stalked variety, vigorous grower, not easily blighted, and a good yielder. Recommended for late crop. Our seed is grown by the originator. Oz., \$1.20; ¼ lb., \$4.50; 1 lb., \$16.00, postpaid.

★ **Utah Jumbo Winter** A late celery of the finest quality. Plant sturdy, compact and solid. Very free from strings, and bleaches to a pure white, nutty and crisp. Oz., \$1.00; ¼ lb., \$3.50; 1 lb., \$12.00, postpaid.

Paragon A Celery of exceptional merit. The plant is dwarf, vigorous, quite hardy, and has a very full heart. Stalks broad, quite thick, very solid, crisp and tender, bleaching readily to a golden yellow color. Highly recommended for an early or late crop. Oz., \$1.50; ¼ lb., \$5.50; 1 lb., \$20.00, postpaid.

Earligreen The finest, earliest green celery that we know. Vigorous and compact in habit of growth. Plant is surprisingly large for an early sort. The outer leaves are green and the very full heart is pure white, brittle and of the most delicious flavor. ¼ oz., \$1.25; ½ oz., \$2.00; 1 oz., \$3.50; ¼ lb., \$10.00, postpaid.

★ **Fordhook Emperor** Quite dwarf and stocky with large, full light yellow heart. Stalks broad, thick and crisp. Very tender and brittle. Oz. 35c; ¼ lb., \$1.25; 1 lb., \$4.00, postpaid.

Winter Queen Oz., 25c; ¼ lb., 75c; 1 lb., \$2.50, postpaid.



New Growers Green

New Growers Green A superior strain of a green Celery, having the characteristics of the Newark Market, but greatly improved in that it has greater vigor and quicker bleaching ability. The stalks are large, thick and fleshy, very brittle, crisp and of fine flavor. Many growers who are having trouble with their yellow Celery should try this strain. Oz., \$1.50; ¼ lb., \$5.50; 1 lb., \$20.00, postpaid.

Michigan Golden Celery

Michigan Golden

Michigan State College Yellows-Resistant Celery

★ **Michigan Golden** Since we introduced Michigan Golden in 1934 this variety has been widely used by growers whose soil is infested with the Fusarium Yellows or root-rot fungus. Prior to its development, losses from this disease in some seasons were as much as \$250,000 to Michigan celery growers alone. Such losses are now preventable by planting Michigan Golden which is practically immune from Fusarium Yellows and can be grown in soils where other yellow varieties are ruined by the disease.

MICHIGAN GOLDEN



YELLOWS-RESISTANT SELF-BLANCHING CELERY

An improved strain of the original Michigan Golden variety bred by plant pathologists of Michigan State College for resistance to Fusarium yellows and introduced by Grand Rapids Growers' Inc.

GENUINE MICHIGAN GOLDEN SEED IS SOLD ONLY IN PACKETS BEARING THE SEAL OF MICHIGAN STATE COLLEGE

Michigan Golden is highly resistant to Fusarium yellows, also known as root rot, crown rot, stunt or sickness. It is not resistant to other celery diseases and seed treatment together with the use of protective dusts or sprays must be relied upon to control leaf blights.

In any inquiry concerning this seed inclose this label and address your communication to

MICHIGAN STATE COLLEGE
DEPARTMENT OF BOTANY AND PLANT PATHOLOGY
EAST LANSING, MICHIGAN

No warranty, expressed or implied, is given as to description, productiveness or purity of this seed and we can not be in any way responsible for the crop. If the purchaser does not accept these terms the seed should be returned immediately and money will be refunded.

G

Serial No.

Original Michigan State College seed is sold only in packets bearing this label and the seal of the College. No other seed is genuine.

Cauliflower

CULTURAL DIRECTIONS. One ounce of seed will produce 4000 plants. Five ounces of seed to an acre. Directions about the same as Cabbage, except planting in rows about 3 feet apart and 18 inches apart in the row. When plants begin to head, tie leaves up around the heads to protect from the sun.

Early Select Snowball 52 days. A very fine strain of this variety producing a magnificent head of snowy whiteness. Head is very compact, even and fine grained. The outer leaves are erect, tending to protect the young head from the hot sun. Selected for evenness in heading, enabling you to market the entire field in rapid succession. Oz., \$1.10; ¼ lb., \$4.00; 1 lb., \$14.00, postpaid.

★ **Growers Special Improved** 60 days. Medium sized heads, snowy white in color, evenly grained and compact. The very best variety of the Snowball type. Oz., \$1.50; ¼ lb., \$5.50; 1 lb., \$20.00, postpaid.

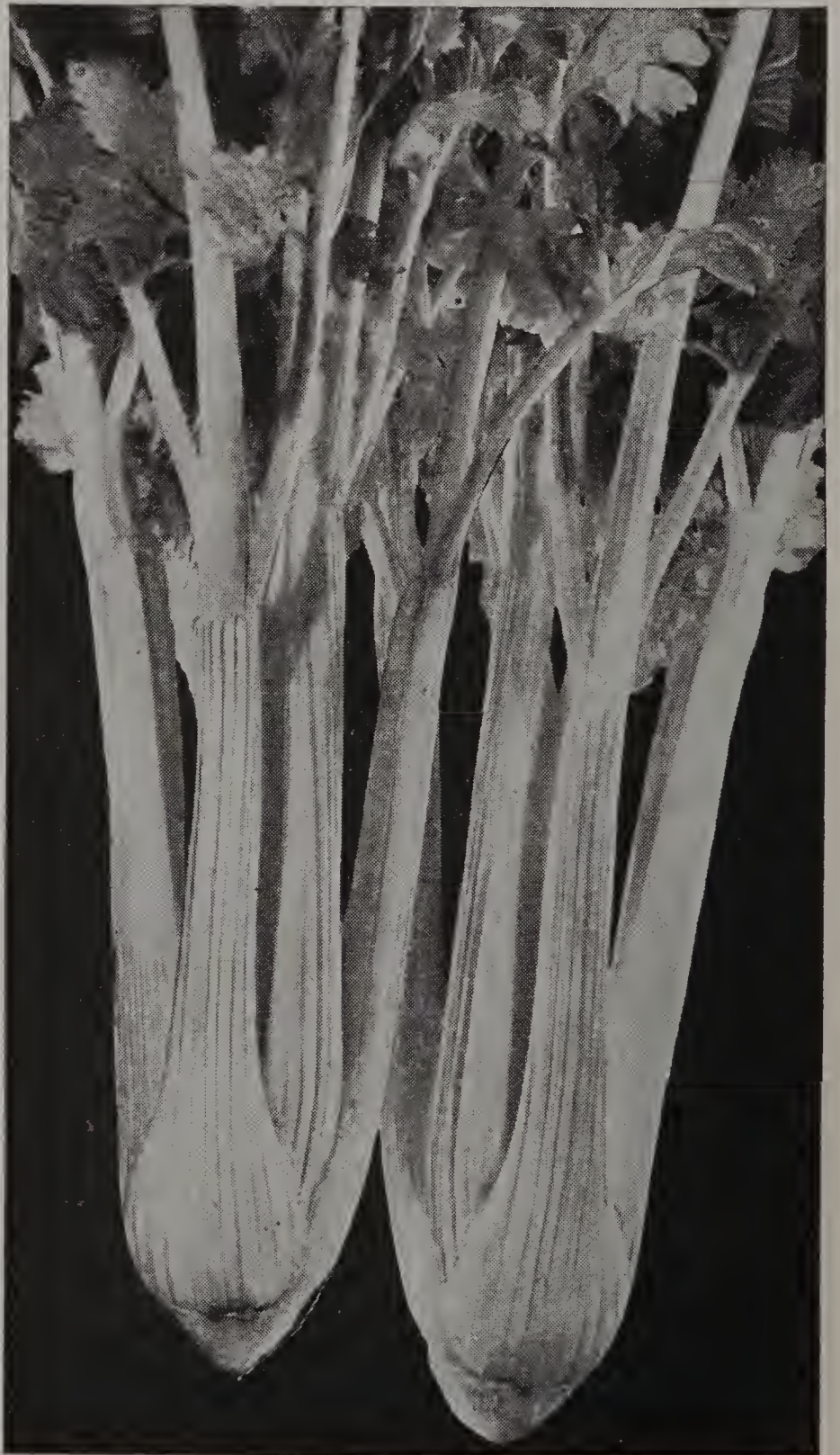
Danish Perfection 65 days. Improved. The self-protecting Cauliflower, so called on account of the spiral-shaped manner in which the leaves grow around the stem, thereby protecting the head with little, if any, tying. Heads snow-white, very compact and solid. Oz., \$1.35; ¼ lb., \$5.00; 1 lb., \$18.00, postpaid.

Danish Dry Weather 65 days. This is an excellent large, pure white variety that matures later than the Select Snowball, but is better suited for dry localities. Oz., \$1.35; ¼ lb., \$5.00; 1 lb., \$18.00, postpaid.

Extra Early Dwarf Erfurt 57 days. An excellent sort, producing good sized creamy white heads. One of the best for general cultivation. Oz., \$1.10; ¼ lb., \$4.00; 1 lb., \$14.00, postpaid.

Since the original strain of Michigan Golden was introduced, breeding has been continued to maintain the high resistance of the variety and to improve commercial qualities. Considerable improvement in plant characters has been effected, including greater uniformity in length of stalk, height of plant and blanching qualities. Due to the influence of soil and seasonal conditions on the growth of the celery plant no one variety will succeed under all conditions Michigan Golden is best adapted to planting in soils heavily infested with the yellows disease fungus. Under these conditions it will produce a crop where other self-blanching kinds will fail. We recommend its use on soils where Fusarium yellows has attacked other varieties of self-blanching celery.

Our seed is produced under the exclusive supervision of pathologists of Michigan State College. The seed is packeted at Michigan State College and is sold by us only in the original sealed containers. ½ oz., \$1.00; 1 oz., \$1.50; ¼ lb., \$5.00; ½ lb., \$10.00; 1 lb., \$20.00, postpaid.



Michigan Golden

Carrots

CULTURAL DIRECTIONS. Carrots require about the same simple care as beets, they have no serious insect enemies, and they are rarely attacked by disease. Since freshly manured soil often causes divided roots, it is best to plant them in soil that has been richly fertilized the previous season. Plant the seed one-half inch deep in loose, well prepared soil, making rows 16 to 24 inches apart. Cultivate as soon as the plants are well established and thin to 2 or 4 inches in the row according to the size of the variety. Plantings may be made from early spring until mid-June. For winter storage the later date is advisable.

Supreme Half Long A new home and market garden variety. Resembles a small refined Danvers with short tops. Roots 6 to 7 inches long, about 2 inches in diameter at shoulder, tapering to a half stump. Exterior smooth and of excellent color. Interior flesh tender, sweet and of fine flavor. Core small and the same dark red as the rest of the flesh. Has enough vigor and stamina to make it easy to grow and yet has small tops and fine flavor. Oz., 10c; ¼ lb., 30c; 1 lb., \$1.10, postpaid.

Imperator 85 days. Smooth and attractive in appearance, 7 to 8 inches long, with rounded shoulders and medium tapered roots. And the deep orange color of the exterior extends throughout the core and inside flesh making it a Carrot of exceptionally fine flavor and quality. It has become a favorite, being used extensively for bunching. Oz., 10c; ¼ lb., 30c; 1 lb., \$1.00, postpaid.

Feonia Coreless 65 days. The most handsome and appetizing appearing Carrot we are acquainted with and of the highest quality. The roots average 6 inches in length by 1½ inches in diameter, nearly cylindrical, exceptionally smooth and of a distinct deep orange. Flesh is crisp, sweet and practically coreless; tops are very small. Oz., 10c; ¼ lb., 30c; 1 lb., \$1.10 postpaid.

★ **Chantenay, Red-Cored** 70 days. This is a distinct improvement over the well known Standard Chantenay, especially in color, texture and quality of flesh. Roots 5½ to 6 inches long, 2¼ inches thick at the shoulder; tapered stump root. Flesh and core reddish orange, fine grained and tender. A sweet, delicate flavor. A favorite with canners, market gardeners and shippers. Oz., 10c; ¼ lb., 25c; 1 lb., 90c, postpaid.

Chantenay 65 days. A medium early, half-long variety for the early market. Roots 5 or 6 inches long, smooth and tapering; orange-red in color. Used largely for bunching. Oz., 10c; ¼ lb., 30c; 1 lb., \$1.00, postpaid.



Feonia Coreless Carrots

Danvers Half Long 75 days. The best main crop sort. Roots smooth and handsome. Very productive. Oz., 10c; ¼ lb., 30c; 1 lb., \$1.00, postpaid.

★ **Morse's Bunching** Tops short; foliage rather coarsely cut and stems medium size and strong. Roots at maturity are 1¼ by 1½ by 8 inches in size, almost cylindrical with rounded shoulders, and are well stumped. Oz., 10c; ¼ lb., 30c; 1 lb., \$1.00.

Long Orange 85 days. Good variety for deep sandy soil. Oz., 10c; ¼ lb., 25c; 1 lb., 90c, postpaid.

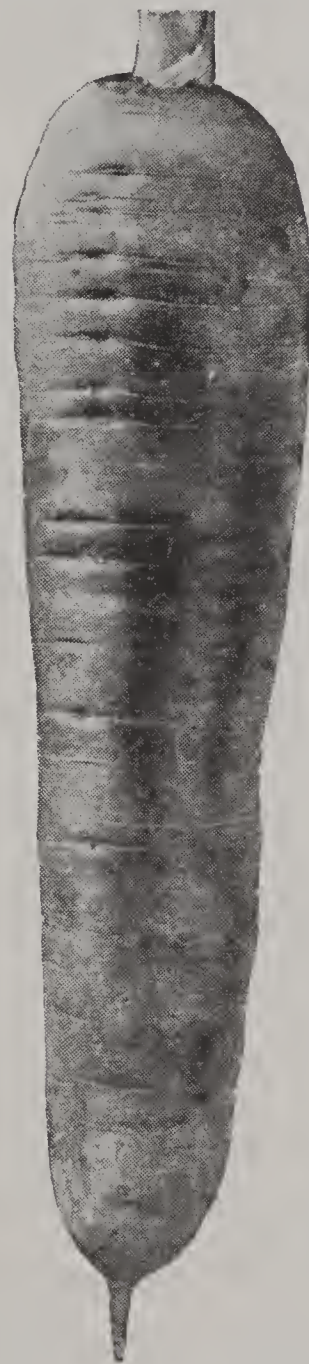
Scarlet Horn 60 days. A small, early, stump-rooted variety of good flavor and quite coreless. The roots will average about 3 inches long. Oz., 10c; ¼ lb., 25c; 1 lb., 90c, postpaid.

★ **Nantes Coreless** 68 days. A very superior carrot. It is coreless, brittle, fine grained and of fine, mild, sweet flavor. The color is reddish orange and the skin is smooth. It is 6 inches long, cylindrical and very stump-rooted. Oz., 10c; ¼ lb., 30c; 1 lb., \$1.10, postpaid.

Oxheart or Guerande 75 days. Very short, thick and stubby. Very desirable for heavy clay soil, as it is easily harvested. Oz., 10c; ¼ lb., 25c; 1 lb., 90c, postpaid.

White Belgian Large, white stock Carrot. Oz., 10c; ¼ lb., 25c; 1 lb., 75c, postpaid.

Yellow Belgian Grows one-third out of the ground. Very large, long yellow stock Carrot. Oz., 10c; ¼ lb., 25c; 1 lb., 90c, postpaid.



Red-Cored Chantenay



Nantes Coreless Carrots

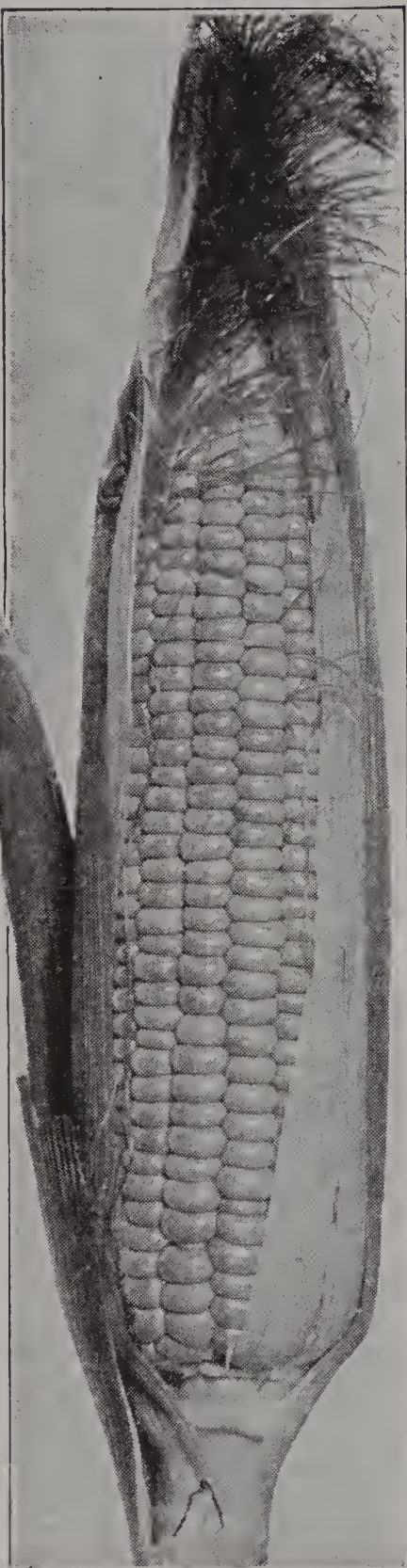
★ This variety recommended by the Michigan State College.

Sweet Corn

CULTURAL DIRECTIONS. One pint for 100 hills; about six quarts per acre. Early corn is planted in rows 2½ to 3 feet apart, and about 8 inches apart in the row, in May, and will be ready for table eight or nine weeks from date of planting. Later varieties should be planted from the 15th of May to the 15th of June. Plant in hills 3 to 4 feet apart. It will be ready for use in from 10 to 12 weeks from date of planting.

Gill's Early Golden Sweet 53 days. Earliest of the golden varieties with medium large ears of highest quality. Averages 12 rows to the ear of about the same size as Improved Bantam with stalks 3½ ft. tall. Recommended for market and home gardens as the sweetest of the early sorts. 1 lb., 25c, postpaid. Not prepaid, 10 lbs., \$2.25; 25 lbs., \$4.50; 50 lbs., \$8.50.

★**Golden "Sunshine"** A valuable new yellow variety for the market grower or the private gardener. It was originated by Professor Yeager of the North Dakota Experiment Station, from a cross between the Golden Bantam and Gill's Early Market, and combines the earliness and large size of ear of the Gill's Early Market with much of the high quality of the Golden Bantam. It is ready for market a week to ten days earlier than Golden Bantam, and has much larger ear, the ears averaging 8½ inches long, with 12 to 14 rows. Everyone who has tested this Corn has much praise for its quality and extreme earliness. Especially valuable to the market grower. Lb., 20c, postpaid. Not prepaid, 10 lbs., \$1.75; 25 lbs., \$3.75; 50 lbs., \$7.50.



Gill's Early Golden Sweet

Early Surprise This corn is really a surprise. Matures in 70 days. It is a white eared and white cobbled corn of very good quality. Ears 7 to 7½ inches long, growing on stalk about five feet tall. Planted at the same time, it is a week to 10 days earlier than Early White Cory. If you want to have the first sweet corn on the market, be sure to plant Early Surprise. Lb., 20c, postpaid. Not prepaid, 10 lbs., \$1.75; 25 lbs., \$3.75; 50 lbs., \$7.50.

Improved Golden Bantam Superior to the original Golden Bantam in quality, and has a larger ear. It matures about the same time. Nearly all ears carry 12 rows of deep, rich, golden yellow kernels, set close upon the cob. It is a favorite with the market gardener. Lb., 20c postpaid. Not prepaid, 10 lbs., \$1.75; 25 lbs., \$3.75; 50 lbs., \$7.50.

★**Golden Bantam** 64 days. Hardy, early maturing, very dwarf. Cob is small but fills out nicely with large, deep cream colored kernels, which turn yellow when ripe. No home garden should be without this excellent Corn. Lb., 20c, postpaid. Not prepaid, 10 lbs., \$1.75; 25 lbs., \$3.75; 50 lbs., \$7.50.

Golden Evergreen 75 days. This new variety combines all the good qualities of Golden Bantam and Stowell's Evergreen. Has the bright golden color and tender kernels of Golden Bantam and the flavor and sweetness of Stowell's Evergreen. Ears much larger than Bantam; not quite as large as Evergreen, but much earlier. Stalks are full leaved and usually bear two well developed ears. Lb., 20c, postpaid. Not prepaid, 10 lbs., \$1.75; 25 lbs., \$3.75; 50 lbs., \$7.50.

★**Golden Cross Bantam** Developed by Glenn M. Smith and introduced jointly by the United States Department of Agriculture and Purdue University Agricultural Experiment Station. Excellent for market gardens and well adapted for canners' use. Highly resistant to Stewart's disease and very prolific. Stalks sturdy, with exceptionally broad, dark green leaves. Ears 10- to 14-rowed, slightly lighter yellow than Golden Bantam. Kernels medium in width and depth. Lb., 30c, postpaid. Not prepaid, 10 lbs., \$2.50; 25 lbs., \$5.00.

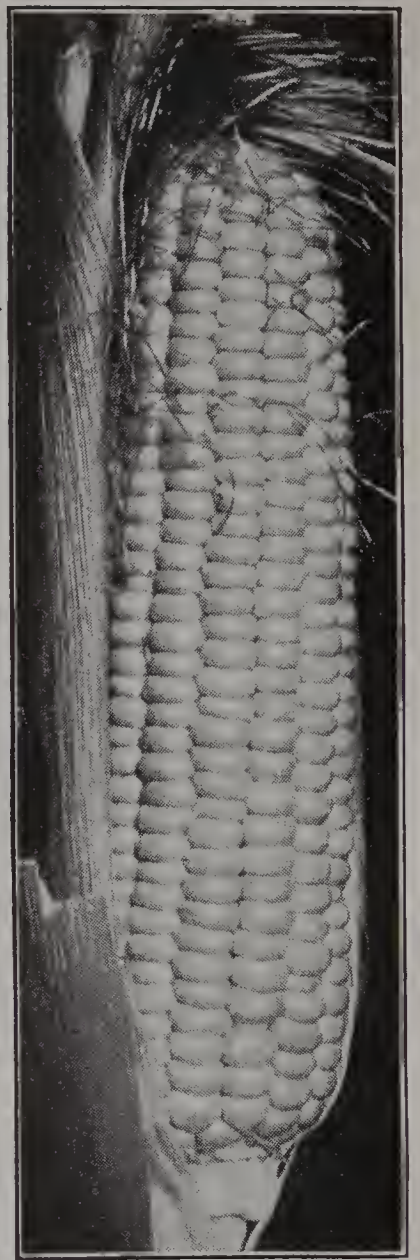
Early Evergreen 78 days. Has all the merits of the "Stowell's" and matures about 10 days earlier. This is a white Corn. It is a splendid variety for the market gardener. Lb., 20c, postpaid. Not prepaid, 10 lbs., \$1.50; 25 lbs., \$3.50; 50 lbs., \$6.75.

★**Stowell's Evergreen** 90 days. The most popular late sweet corn. More extensively planted than any other sort, being the general favorite with market gardeners. Ears are of good size, grain deep; tender and sugary. Lb., 20c, postpaid. Not prepaid, 10 lbs., \$1.50; 25 lbs., \$3.50; 50 lbs., \$6.75.

Country Gentleman (White or Shoe Peg Corn). 90 days. An especially fine quality Corn; without row formation. Lb., 20c, postpaid. Not prepaid, 10 lbs., \$1.50; 25 lbs., \$3.50; 50 lbs., \$6.75.

Golden Country Gentleman 92 days. This is similar to the White Country Gentleman, with a light yellow or cream color to the grain. Ears are slightly shorter, but the grain is carried in the same manner. Lb., 20c, postpaid. Not prepaid, 10 lbs., \$1.75; 25 lbs., \$3.75; 50 lbs., \$7.50.

Ioana Hybrid See page 4.



★ Sunshine

POP CORN

Selected White Rice A very handsome and prolific white Pop Corn. Ears are 5 to 7 inches long. 1 lb., 20c, postpaid. Not prepaid, 5 lbs., 75c.

Japanese Hulless Dwarf growing; heavy yielder of attractive ears; peculiar form, being nearly as thick as long. Color pearly white. Entirely hullless, making it the tenderest of any Pop Corn when popped. 1 lb., 20c, postpaid. Not prepaid, 5 lbs., 75c.

South American Yellow 110 days. Sunburst. Better adapted for Michigan climate. It matures about 2 weeks earlier than the true type South American yellow. Amber color, large size when popped, having a butter-colored tint. 1 lb., 15c, postpaid. Not prepaid, 5 lbs., 50c.

Black Beauty Ripens earlier than other varieties. Kernels black but snow-white when popped. 1 lb., 20c, postpaid. Not prepaid, 5 lbs., 75c.

Table and Pickling Cucumbers

CULTURAL DIRECTIONS. One ounce of seed to fifty hills; two pounds per acre. Cucumbers should not be planted until the ground is warm, about June first. For pickles, they may be planted as late as July first. They require a warm, rich, sandy soil. Plant in hills about 4 feet apart and about 8 seeds to the hill. When all danger from insects is past, thin to three or four of the strongest plants.

Grand Rapids Forcing (New Improved Strain.) This seed was grown for us this past season under our own supervision by Mr. R. Yonker, who, by careful plant selection has developed a cucumber that is truly worthy of the name "Grand Rapids Forcing." It is of the white spine type with blunt ends, averaging 2½ to 3 inches in diameter and 10 to 12 inches long. An ideal forcing strain that will meet the demand of the greenhouse trade. 1 oz., \$1.25; ¼ lb., \$3.50; 1 lb., \$12.00, postpaid.

★ **Improved "A & C"** 50 days. We are offering this popular variety which was produced by us from seed secured from the originator, and on which we have made special selections in an endeavor to improve this splendid strain still further. The vigorous growing, disease resistant vines produce an abundance of uniform, exceedingly dark green cucumbers, averaging 10 inches long. The fruits are of uniform diameter from stem to blossom end, are rather slim, averaging 1¼ to 1½ inches in diameter, without any bulge in the center, and with practically no taper at the ends. This is one of the best bred and most popular strains of cucumbers in existence. Oz., 15c; ¼ lb., 45c; 1 lb., \$1.50, postpaid.

Chicago Pickling, or Westerfield's 58 days. Early, heavy yielder. A very prolific variety combining all the qualities desired by those who raise cucumbers. Fruits are of uniform size and good color. Used almost exclusively by all large pickling houses. Ready for market in 58 days. Oz., 10c; ¼ lb., 30c; 1 lb., \$1.10, postpaid.

Improved Long Green 68 days. A standard late, well known table sort. 12 to 14 inches long, slender, more or less warted, tapering towards the stem end, color dark green, flesh white and firm. Oz., 15c; ¼ lb., 40c; 1 lb., \$1.25, postpaid.

Early Fortune 58 days. One of the most productive sorts now grown. Fruit symmetrical, about nine inches in length, round and beautiful dark green in color, which does not fade. Flesh very brittle and crisp, with small seed cavity. Oz., 10c; ¼ lb., 30c; 1 lb., \$1.10, postpaid.

White Spine (Improved). 58 days. A very fine, early strain. Fruit very rich, dark green, symmetrical, thick and nearly square ended, vigorous and productive. Oz., 10c; ¼ lb., 30c; 1 lb., \$1.10, postpaid.

Black Diamond 52 days. It is one of the earliest and most popular white spine varieties for market use. The length has been increased to 9" and the extremely dark green color is retained well into the mature stage. It has rounded ends with a slight taper at the stem end. Highly productive. Oz., 10c; ¼ lb., 30c; 1 lb., \$1.10, postpaid.



Grand Rapids Forcing

Arlington White Spine 60 days. One of the earliest and very productive. Fruit uniform, of bright green color. Used for early slicing. Oz., 10c; ¼ lb., 30c; 1 lb., \$1.10, postpaid.

Longfellow Cucumber An excellent long, slender, dark green variety, equally desirable for greenhouse forcing or outdoor culture. An ideal type for the private garden or as a straight pack variety for shipment to market. 12 to 14 inches long by 2½ inches in diameter. Fairly early, a good healthy grower, very productive. Oz., 15c; ¼ lb., 40c; 1 lb., \$1.25, postpaid.

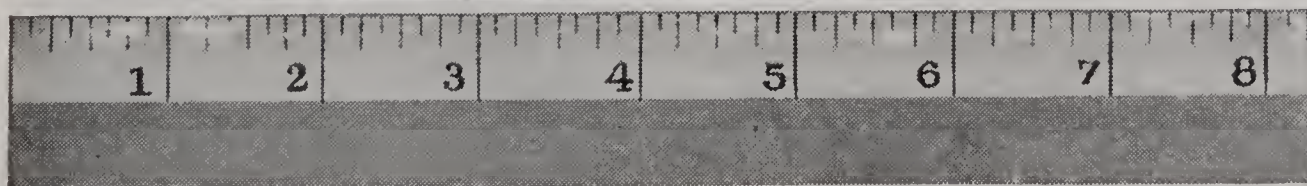
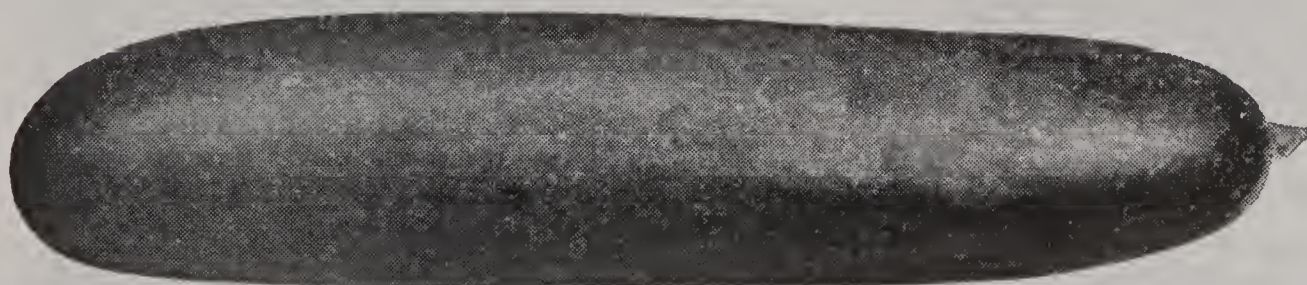
Davis' Perfect 58 days. One of the products of our Eugene Davis, produced by crossing the White Spine variety with a long English forcing cucumber. The Davis' Perfect is one of the most prolific sorts. The fruit is long, slim, and holds color till nearly ripe. Oz., 15c; ¼ lb., 40c; 1 lb., \$1.25, postpaid.

Kale or Borecole

CULTURAL DIRECTIONS. One ounce to 150 feet of drill. Sow from August 15th to October in rows 18 inches apart, and they will yield greens during fall and winter. They are improved by freezing.

Dwarf Curled Scotch 110 days. A handsome, very finely curled, dwarf, spreading variety, foliage long and an attractive bright green; very hardy. Oz., 10c; ¼ lb., 30c; 1 lb., \$1.00, postpaid.

Tall Curled Scotch 110 days. Plants of this variety grow 2 to 3 feet in height, bearing long plume-like, light green leaves which are much cut and deeply curled at the edges. Very hardy. Oz., 10c; ¼ lb., 30c; 1 lb., \$1.00, postpaid.



★ **Straight-8** 60 days. This outstanding variety which is offered for the second year produces symmetrical cylindrical fruits about 8 inches in length and about 1½ inches in diameter. The fruits are well rounded at the ends, and when in condition for use are deep green and free from objectionable striping or tipping. This is an ideal shipping variety, also equally desirable for the home and market gardener. Oz., 15c; ¼ lb., 40c; 1 lb., \$1.25, postpaid.

Eggplant

CULTURAL DIRECTIONS. One ounce to 1000 plants. Seed germinates very slowly and requires warm ground. Start in hotbeds in March. Transplant about June 1st in rows about three feet apart and two feet apart in the row.

Black Beauty 110 days. Early and productive. Fruit large and of a rich glossy black color. Oz., 25c; $\frac{1}{4}$ lb., 80c; 1 lb., \$3.00, postpaid.

New York Purple 120 days. A favorite market variety. Fruits larger than the Black Beauty. The plant is large, spreading and spineless, producing 4 to 6 large, oval fruits of dark purple color. Oz., 25c; $\frac{1}{4}$ lb., 80c; 1 lb., \$3.00, postpaid.

Endive

CULTURAL DIRECTIONS. One ounce to 150 feet of drill. Sow in rows about 15 inches apart and thin to one foot apart in the row. Sow seed for Fall crop in June or July. When nearly full grown, tie outer leaves together bringing them up over the head for blanching.

Long Green Curled The most hardy and vigorous sort, has very curly leaves, the mid-rib being white. After blanching, the leaves make a delicious and appetizing salad. Oz., 10c; $\frac{1}{4}$ lb., 30c; 1 lb., \$1.00, postpaid.

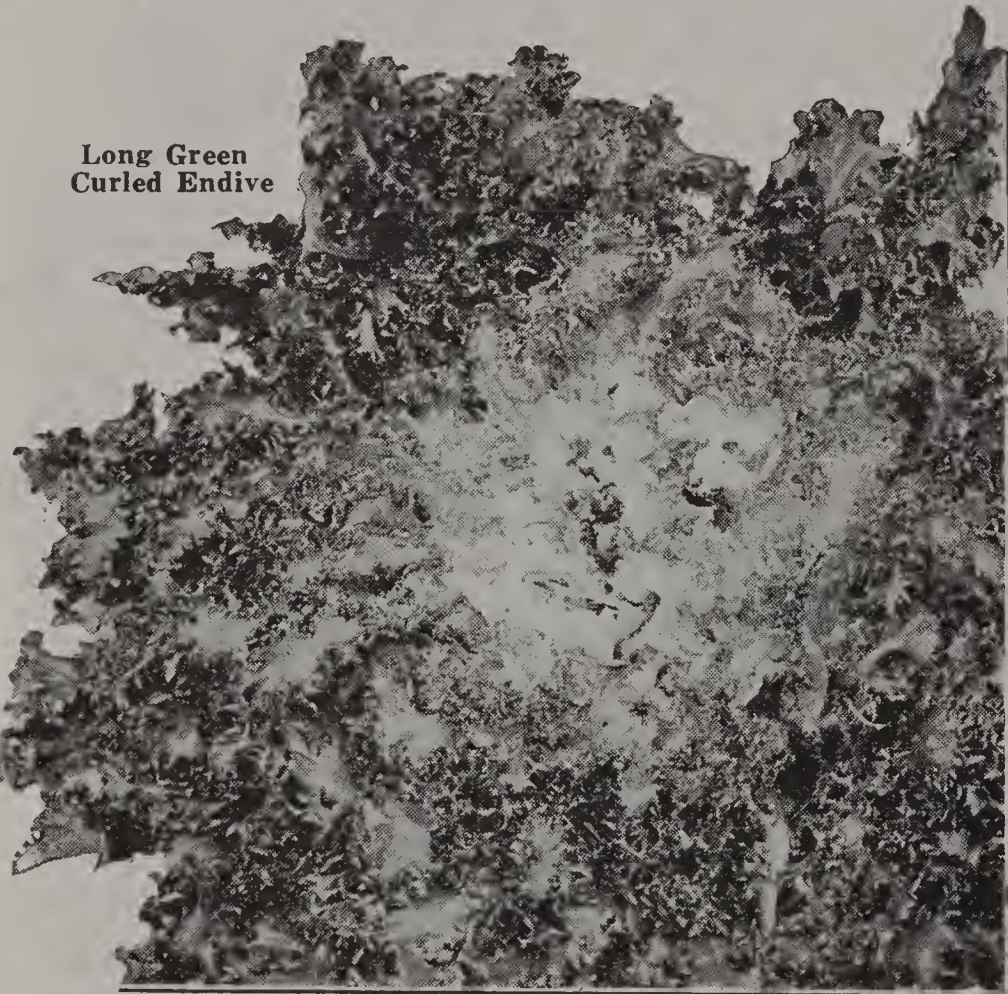
Moss Curled Grows more compact than the green curled and the medium green leaves are finer cut, blanches creamy white. Oz., 10c; $\frac{1}{4}$ lb., 30c; 1 lb., \$1.00, postpaid.

Broad-Leaved Batavian (Escarolle). 75 days. One of the best varieties for salads; leaves of upright growth, broad, more or less twisted and waved, bright deep green, with a nearly white midrib. Inner leaves form a fair head which blanches a creamy white. Oz., 10c; $\frac{1}{4}$ lb., 30c; 1 lb., \$1.00, postpaid.



Black Beauty Eggplant

Long Green Curled Endive



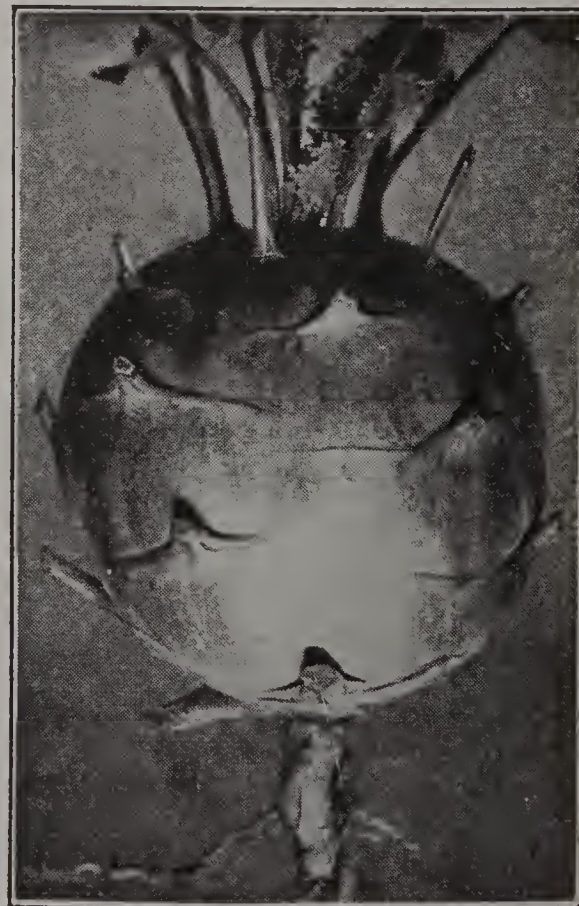
Cress or Pepper Grass

CULTURAL DIRECTIONS. Sow early in the spring in rich, well prepared soil, in rows about fifteen inches apart. Thin to four inches apart in the row.

Extra Curled (Pepper Grass). A small, curled plant having a fine pungent flavor and used as a salad. Should be sown thickly and frequently, covering very lightly as it soon runs to seed. May be cut several times. Oz., 10c; $\frac{1}{4}$ lb., 25c; 1 lb., 75c, postpaid.

Collards

True Georgia Plant two to three feet high, forming a cluster of tender, undulated leaves at the top of its rather long stem; used as greens. Oz., 10c; $\frac{1}{4}$ lb., 30c; 1 lb., \$1.00, postpaid.



White Vienna Kohl-rabi

Kohl-rabi—Turnip-Rooted Cabbage

CULTURAL DIRECTIONS. One ounce to 200 feet of drill. Seed should be sown in light, rich soil, very early in the spring for early crop, in rows eighteen inches apart and thin to six inches apart in the row. Plantings should be made the latter part of July for fall use. Should be used when young and tender.

Early White Vienna 60 days. Very early, small tops, can be planted close together; best for forcing, or field culture. Oz., 15c; $\frac{1}{4}$ lb., 50c; 1 lb., \$1.75, postpaid.

Leek

American Flag Stem about ten inches long by two inches thick. A strong, vigorous plant with mild flavor. One of the best sorts for the market garden. Oz., 15c; $\frac{1}{4}$ lb., 50c; 1 lb., \$1.50, postpaid.

Leaf Lettuce

CULTURAL DIRECTIONS. One ounce to 150 feet of drill. Lettuce requires rich soil to grow best quality. Mix Pulverized Hen Manure well with the soil and sow seed very early in the spring. For leaf lettuce, sow in rows twelve inches apart and do not thin until plants are big enough to use. Head lettuce should be sown in rows twelve inches apart and thinned to eight inches apart in the row.

★ Grand Rapids Forcing, Washington Strain

45 days. This splendid strain is one of the favorite strains, being used by all of the large greenhouse growers, who recommend it as a superior lettuce. It was first produced by plant selection by the honored W. W. Tracy of the Agricultural Department at Washington. Mr. Yonker procured some from Eugene Davis, sent him by Mr. Tracy. Mr. Yonker, by careful plant selection, has kept it up to its original purity. It is absolutely true to type and is more like the original Grand Rapids Forcing as it came from the hands of Eugene Davis. Mr. Yonker is well qualified to continue the breeding of this variety and can be depended upon to keep it up to its present high standard. There are very few, if any, sports. Color a light green; heads very heavy; leaf crisp, tender and curly; quality of the best. We grow our stock seed in the greenhouse and send to one of the best lettuce seed growers on the Coast to grow the seed crop. Oz., 20c; ¼ lb., 60c; 1 lb., \$2.00, postpaid.

Grand Rapids Forcing, Ohio Strain, Dark Green

An exceptionally good strain of the old type of forcing variety and is especially adapted to mid-winter crop in the greenhouse. The leaf is dark green, of rapid upright growth, and curly. The quality is very desirable and will retain its freshness a long time after being cut. A great favorite in the Ashtabula and Cleveland Lettuce markets. Oz., 15c; ¼ lb., 50c; 1 lb., \$1.75, postpaid.

Grand Rapids Tip Burn Resistant Color light green, somewhat like the Washington strain, being used for greenhouse growing where tip burn is visible. Oz., 20c; ¼ lb., 60c; 1 lb., \$2.00, postpaid.

Early Curled Simpson 40 days. An early loose leaf variety. One of the best sorts for the home garden. Oz., 10c; ¼ lb., 30c; 1 lb., \$1.00, postpaid.

★ **Black-Seeded Simpson** 40 days. One of the best loose leaf varieties for the home garden or for the market garden, for outdoor sowing. Can be grown all through the season. Very tender. Oz., 10c; ¼ lb., 30c; 1 lb., \$1.00, postpaid.

Prizehead 45 days. A crisp and tender loose-leaved, non-heading sort, color light brown on a medium green base, quality good. Oz., 10c; ¼ lb., 30c; 1 lb., \$1.00, postpaid.

Head Lettuce

Big Boston 76 days. Heads best in cool weather of early spring and late fall. We do not recommend it for the hot summer months. Oz., 10c; ¼ lb., 30c; 1 lb., \$1.00, postpaid.

White Boston 70 days. Has a fine, large, solid head and light green outer leaves, but does not have the brown edges. A tightly folded heart that blanches to a bright, creamy yellow shade. It is sweet and crisp. Oz., 15c; ¼ lb., 40c; 1 lb., \$1.25, postpaid.

Unrivalled or Green Leaved Big Boston Unrivalled heads better in hot weather than Big Boston, which it resembles, but without the red tinge. The heads are firm and of high quality. Oz., 10c; ¼ lb., 30c; 1 lb., \$1.00, postpaid.

Imperial 847 Resistant to brown blight. Crisp heading plants of medium size. Leaves smooth, thick, medium light green. Heads round, well folded and firm. Oz., 20c; ¼ lb., 60c; 1 lb., \$2.00, postpaid.



Imperial No. 152

★ **Imperial No. 152** New heading variety that is outstanding over other varieties. Resistant to brown blight, and well adapted for early fall planting. The heads are medium sized, hard, and attractive. Oz., 15c; ¼ lb., 40c; 1 lb., \$1.25, postpaid.

Imperial 44 This is somewhat similar to Imperial 152, being a hybrid from this popular variety. It has very long well folded leaves and produces hard well formed heads under ideal circumstances. Oz., 20c; ¼ lb., 60c; 1 lb., \$2.00, postpaid.

Salamander A large, firm head, leaves light green, broad, thick, somewhat crumpled, closely overlapping so that they blanch to a creamy white. Oz., 10c; ¼ lb., 30c; 1 lb., \$1.00, postpaid.

All Seasons 80 days. Heads very large, grayish green, leaves rather thick but blanch to a beautiful golden yellow. This variety wants hot weather to head well and is not satisfactory for early spring crop. Oz., 10c; ¼ lb., 30c; 1 lb., \$1.00, postpaid.

Hanson 80 days. Forms large, flat head, outer leaves are bright green, inner leaves white, quality good. Oz., 10c; ¼ lb., 30c; 1 lb., \$1.00, postpaid.

New York or Wonderful 75 days. A large, late globular heading variety, leaves broad, of thick texture, fairly blistered and crumpled, and the borders frilled; color dark green, quality good. Known in California and the West as "Los Angeles" and shipped to eastern markets under the misleading name of "Iceberg." For an all-season variety it stands unrivalled. Oz., 15c; ¼ lb., 50c; 1 lb., \$1.50, postpaid.

Iceberg 80 days. A large, crisp Lettuce, very tender, stands hot weather better than most varieties, but has not been grown successfully on our muck, therefore we would recommend the New York or Wonderful. Oz., 10c; ¼ lb., 30c; 1 lb., \$1.00, postpaid.

Romaine or Early White Self-Folding Lettuce 70 days. We consider this the very best strain of the Cos variety. Very uniform in type, and forms a compact, firm head. Color dark green outside and beautifully blanched inside. Very crisp; sweet. Oz., 15c; ¼ lb., 40c; 1 lb., \$1.25, postpaid.

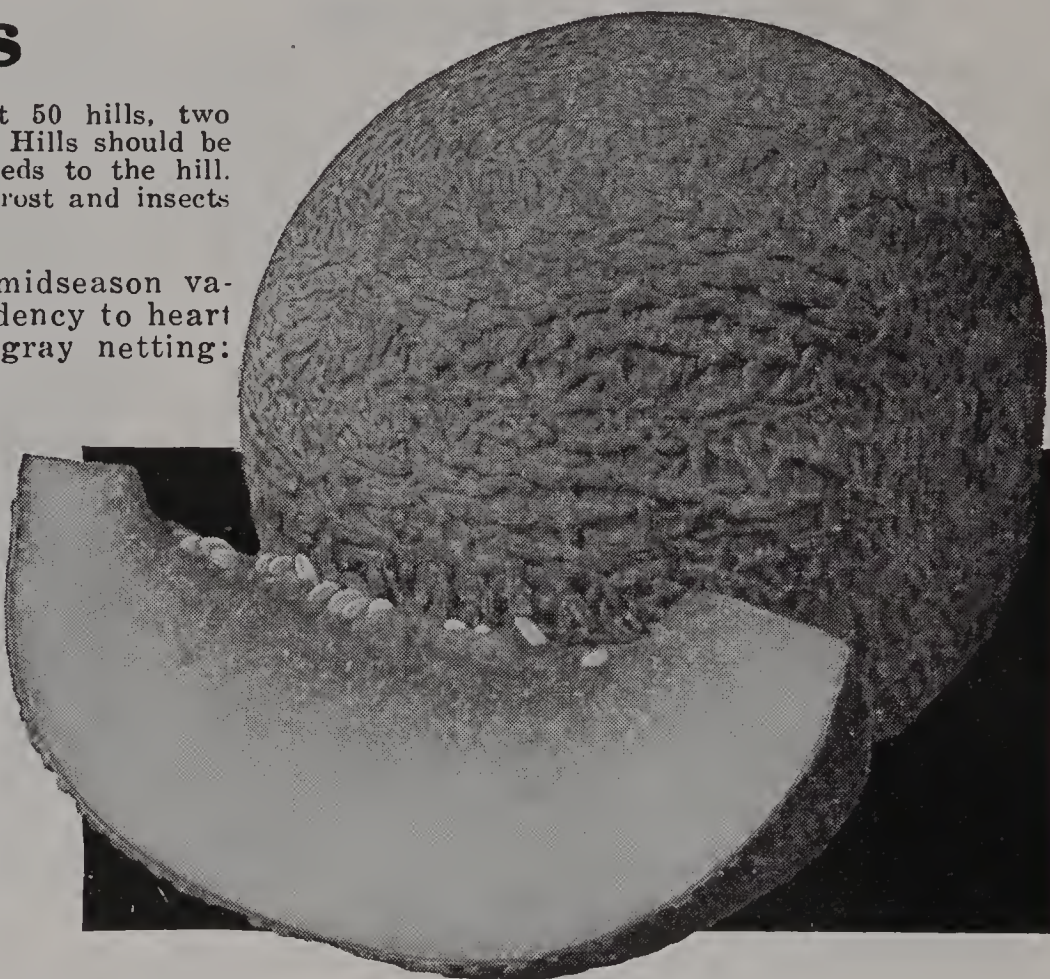
Muskmelons

CULTURAL DIRECTIONS. One ounce will plant 50 hills, two pounds an acre. Melons do best in a rich, sandy soil. Hills should be from four to six feet apart. Plant ten to twelve seeds to the hill. Cover seeds with an inch of soil. When danger from frost and insects is past, thin to four good plants to the hill.

★**Hearts of Gold** 88 days. A splendid small, midseason variety, fruit round, with a tendency to heart shape, lightly ribbed and covered with a fine gray netting; flesh very thick, deep salmon color, and of high quality; a good shipping Melon. Oz., 10c; ¼ lb., 35c; 1 lb., \$1.20, postpaid.

★**Honey Rock** 80 days. One of the most prolific varieties grown. The fruit is round, slightly flattened at the ends, of medium size and distinctly netted. The flesh is soft pink with a greenish tint. The rind is hard and the flesh so firm that it is an excellent shipper. Oz., 10c; ¼ lb., 35c; 1 lb., \$1.20, postpaid.

Extra Early Osage 87 days. A very fine Melon of the Osage type. Seed cavity very small. Flesh deep, rich yellow color, very sweet and delicious. At least one week earlier than the Osage Melon, smaller, vine prolific. Oz., 10c; ¼ lb., 30c; 1 lb., \$1.00, postpaid.



Honey Rock Muskmelon



Hearts of Gold

Extra Early Knight 95 days. The earliest high quality Melon and especially adapted for growing in the far North. A medium sized variety with oblong fruit distinctly ribbed and well covered with a close gray netting; skin deep green, turning to golden at maturity; flesh fairly thick, exceedingly sweet and of a bright green color. Oz., 10c; ¼ lb., 30c; 1 lb., \$1.00, postpaid.

Honey Dew 110 days. Fruit large, surface smooth and hard, without ribbing or netting, flesh light emerald-green, thick, very tender and melting with an extreme sweetness found in no other Melon. Is an excellent shipping and keeping sort. Oz., 10c; ¼ lb., 30c; 1 lb., \$1.00, postpaid.

Osage 92 days. A rather large, oval Melon of very superior quality, fruit dark green, slightly ribbed and well covered with a shallow, gray netting; flesh rich orange-salmon, exceedingly thick, with a small seed cavity. Oz., 10c; ¼ lb., 30c; 1 lb., \$1.00, postpaid.

Bender Surprise 90 days. A new yellow-fleshed Melon, becoming very popular in the East. A splendid keeper and shipper. Melon is large, netted, flesh very deep, sweet and delicious. Oz., 10c; ¼ lb., 30c; 1 lb., \$1.00, postpaid.

Growers Golden Osage 90 days. A new deep yellow variety, oval and medium sized. A very attractive Melon. Seed stock is grown under our own supervision. A real treat for the market gardener. Oz., 10c; ¼ lb., 40c; 1 lb., \$1.25, postpaid.

Hale's Best Muskmelon Has become one of the most popular melons for the home and market garden trade. It is fairly early, a good shipper, oval in shape, averaging 5 inches in diameter and 7 to 9 inches long with heavy netting, and fairly prominent ribs. The flesh is a rich deep salmon color with a very fine flavor. Oz., 10c; ¼ lb., 35c; 1 lb., \$1.20, postpaid.



Hale's Best

Selected Varieties of Watermelon

CULTURAL DIRECTIONS. One ounce to 30 hills, about four pounds per acre. Watermelons want rich, sandy soil. Cultural directions the same as for Muskmelons, except the hills should be eight feet apart.

Cole's Early 80 days. One of the earliest Melons; small, seldom more than 12 inches long. Flesh red and sweet; rind thin and brittle. Not a good shipper, but good for home garden and early market. Oz., 10c; ¼ lb., 30c; 1 lb., 85c, postpaid.

Irish Grey Main Crop. 90 days. Especially valuable for distant shipping. Fruit large, oblong, uniform, light grayish green. Rind extremely hard. Flesh bright red. Good quality. Oz., 10c; ¼ lb., 25c; 1 lb., 75c, postpaid.

Tom Watson 92 days. Produces Melons 18 to 24 inches long by 10 to 12 inches in diameter. Flesh deep red and very crisp; melting and of exquisite flavor. Good shipper. Oz., 10c; ¼ lb., 30c; 1 lb., 85c, postpaid.

★ **Kleckley's Sweet or Monte Cristo** 105 days. One of the sweetest melons on the market; medium early, long, averaging 18 to 20 inches, slightly tapering to the stem end. Rind very dark green, flesh very bright rich red and ripens nearly to the rind. Too tender for a shipping Melon, but excellent for market and home garden. Oz., 10c; ¼ lb., 30c; 1 lb., \$1.00, postpaid.

Peerless or Ice Cream 85 days. An old standby. Medium early; fruit oblong, large size; rind light green, mottled and veined; flesh scarlet, solid to center, sweet, melting and delicious. Not a good shipper. Oz., 10c; ¼ lb., 30c; 1 lb., 85c, postpaid.

Sweetheart A medium early variety growing to a large size; a heavy, round to oblong form with rather thick, tough rind and a good shipper. Color very light green, flesh bright red with black seeds. Oz., 10c; ¼ lb., 30c; 1 lb., \$1.00, postpaid.

Citron, Red Seeded 90 days. The old well known red-seeded preserving Melon. Oz., 10c; ¼ lb., 30c; 1 lb., 85c, postpaid.

Stone Mountain This variety combines extra large size with earliness. It is nearly round in shape, pleasingly green in color and unexcelled for sweetness and juiciness. Fruits weigh from 60 to 80 pounds in the South, and the 95 days required for maturity make it easily possible to grow correspondingly large fruits in the North. Oz., 10c; ¼ lb., 40c; 1 lb., \$1.25, postpaid.



Stone Mountain Watermelon

Dixie Queen A new variety, for the market and the home garden. Excellent quality, fruit nearly round, with light and dark green stripes, growing to a good size. Rind thin, but tough—flesh bright scarlet, solid, of fine texture. Oz., 10c; ¼ lb., 30c; 1 lb., \$1.00, postpaid.

Klondike A melon of good quality. Exceptionally sweet and fine flavor. Flesh is deep red and brittle, fruit oblong. A very good yielder, fairly early and has given satisfaction in the North for the market and home garden. Oz., 10c; ¼ lb., 30c; 1 lb., \$1.00, postpaid.

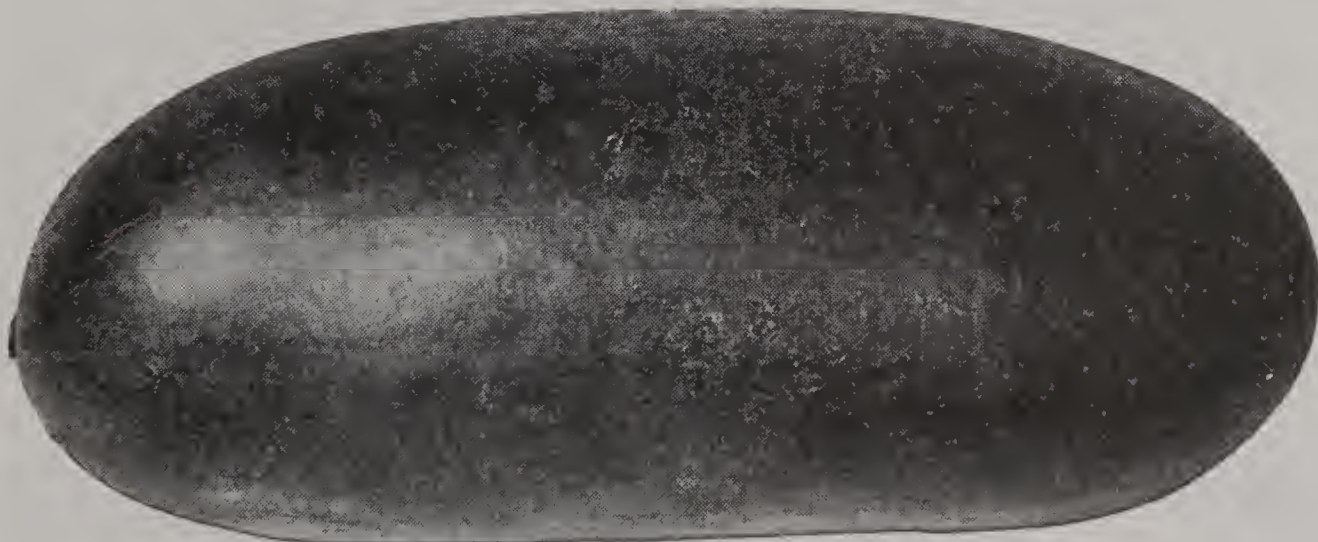
Mustard

Southern Giant Curled 30 days. Plant vigorous and hardy, upright spreading growth, leaves large, green tinged yellow, much crumpled and frilled at the edges. Oz., 10c; ¼ lb., 20c; 1 lb., 55c, postpaid.

Fordhook Fancy 30 days. A vigorous growing mild variety, leaves dark green, beautifully curled and fringed. Fine for salads and garnishing. Oz., 10c; ¼ lb., 20c; 1 lb., 55c, postpaid.

Okra or Gumbo

White Velvet 50 days. Plants 3½ feet high, pods white, long, smooth and tender; early and productive. Oz., 10c; ¼ lb., 25c; 1 lb., 65c, postpaid.



Kleckley's Sweet or Monte Cristo

★ This variety recommended by the Michigan State College.

Choice Onion Seed

CULTURAL DIRECTIONS. One ounce to 100 feet of drill; about four pounds to the acre. Onions for the market are generally grown on muck land in Michigan, but may be grown for home use on any rich, loamy soil. They appreciate plenty of fertilizer on muck; the market growers apply heavily about a 2-8-16 fertilizer. Drill in rows about a foot apart.



"Brigham Strain"

★ **Extra Early Yellow Globe** Excellent semi-globe shaped and is a good yielder. It ripens well, and under normal conditions the bulbs are ready for market 10 days ahead of the Southport Yellow Globe. The color is a rich deep yellow and it can be kept in storage for a limited time. Oz., 15c; ¼ lb., 50c; 1 lb., \$1.75, postpaid.

★ "BRIGHAM STRAIN" The Long Keeping Onion

110 days. The seed stock for this fine strain of Onion seed is grown under our own supervision. The bulbs used are very carefully selected to insure our users that this variety is pure. Bulbs are selected for type and quality, and produce larger Onions with a vigorous growth. Onions grown from our seed stock are very good keepers, globe shaped with a rich golden color, as shown on inside back cover. Oz., 15c; ¼ lb., 50c; 1 lb., \$1.75, postpaid. If larger quantities are wanted, write for special prices.

★ **Southport Yellow Globe** 110 days. This Onion is our yellow market variety. It is very uniform as to size. A good yielder, and recommended for its keeping qualities in storage. A handsome yellow globe variety. Oz., 15c; ¼ lb., 50c; 1 lb., \$1.75, postpaid.



Extra Early
Yellow Globe



Burrill's Original Sweet Spanish

Burrill's Original Strain

Sweet Spanish The very best of the sweet Spanish Onions. Full globe shaped, deep bronze in color, large size and vigorous tops. This variety is well bred and no off-colors will be found. The type is recommended for shipping in Spanish crates, as well as in 50-pound bags. We recommend this seed to the most critical growers. Oz., 35c; ¼ lb., \$1.25; 1 lb., \$4.00, postpaid.

White Sweet Spanish 110-112 days. The largest of the white onions. Bulbs, globular with a small neck, pure white, flesh clear white, firm and solid. Very attractive and a fair keeper. Oz., 25c; ¼ lb., 75c; 1 lb., \$2.50, postpaid.

Sweet Spanish, Grower's Strain The largest yielder of the yellow Onions, averaging 3 to 4 inches in diameter. The best and not susceptible to the attack of thrip. Good keeper and shipper. Oz., 15c; ¼ lb., 50c; 1 lb., \$1.75, postpaid.

★ **Southport Red Globe** 120 days. Same shape as the Southport Yellow but color purplish red. A good keeper. Oz., 15c; ¼ lb., 40c; 1 lb., \$1.25, postpaid.

★ This variety recommended by Michigan State College.

ONION SEEDS—Continued

Prizetaker or Mammoth Yellow Spanish 100 days. Very large, and nearly round, light straw color, very mild and sweet. Late. Oz., 15c; ¼ lb., 50c; 1 lb., \$1.50, postpaid.

Red Wethersfield 100 days. One of the oldest and best known American types, large, rather flat, deep purplish red. Oz., 15c; ¼ lb., 40c; 1 lb., \$1.25, postpaid.

Yellow Globe Danvers 110 days. A very popular dependable variety. Is an exceptional keeper. Oz., 15c; ¼ lb., 40c; 1 lb., \$1.25, postpaid.

Japanese Long Bunching Onion A new perennial bunching Onion which does not form a bulb. It is early and vigorous and with a little protection will stand all winter. Owing to its quality and fine appearance, it makes an attractive bunch that is a money maker for the market gardeners. Oz., 15c; ¼ lb., 50c; 1 lb., \$1.50, postpaid.

★ **Southport White Globe** 120 days. Same type as Southport Yellow Globe, with a thin delicate skin of pure paper whiteness, but two weeks earlier and exceedingly mild. It usually commands the highest price on the market. Oz., 15c; ¼ lb., 50c; 1 lb., \$1.75, postpaid.

White Barletta 65 days. One of the earliest, handsomest and smallest of the white pickling Onions. Makes a good bunching sort. Oz., 20c; ¼ lb., 60c; 1 lb., \$2.00, postpaid.

White Welsh 100 days. While it forms no bulbs it is one of the best for bunching as green Onions. Very hardy. The white shoots make a rapid growth and are ready for market ahead of those from sets. Mild and delicate in flavor. Oz., 20c; ¼ lb., 60c; 1 lb., \$2.00, postpaid.

White Portugal or Silverskin 95 days. An early flat white Onion of mild flavor. Used mostly to grow sets. Oz., 15c; ¼ lb., 40c; 1 lb., \$1.25, postpaid.

Onion Sets

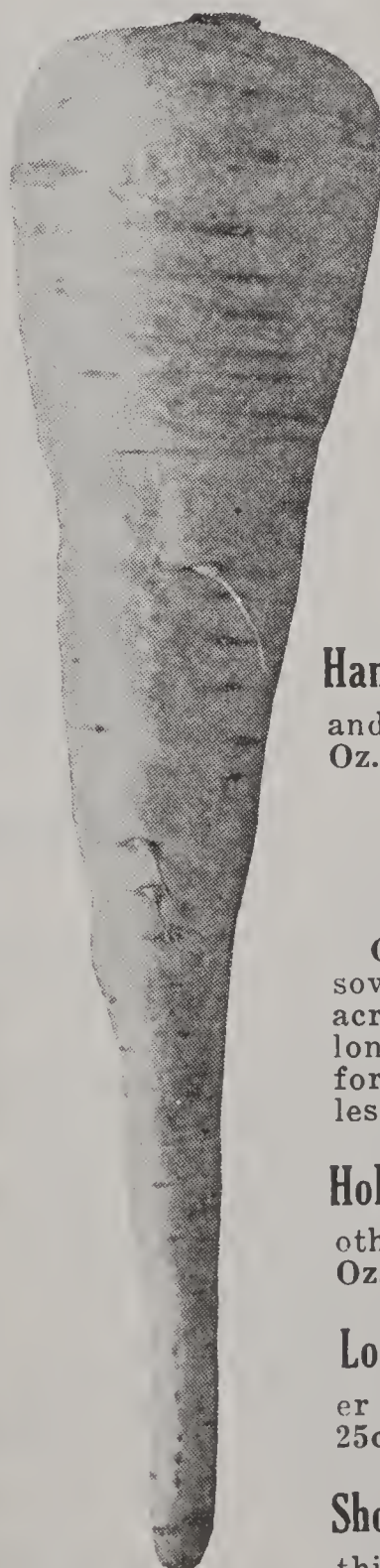
We can supply the Silverskin sets, Ebenezer or Japanese sets as well as Egyptian or Perennial Top Sets. Write for prices.



Champion Moss Curled Parsley



Southport White Globe



Hollow Crown Parsnip

Parsley

CULTURAL DIRECTIONS. One ounce to 150 feet of drill. Seed germinates very slowly. Sow thickly in rows about 15 inches apart, and thin to four or five inches apart in the row.

Champion Moss Curled Has the appearance of finely curled moss; hardy, slow to run to seed. Oz., 10c; ¼ lb., 25c; 1 lb., 70c, postpaid.

Triple Curled Plant handsome, beautifully curled and rapid grower. Will produce a large crop. Oz., 10c; ¼ lb., 25c; 1 lb., 70c, postpaid.

Hamburg Rooted Grown for the root which resembles a parsnip in shape and color. Foliage very much like plain parsley. Oz., 10c; ¼ lb., 25c; 1 lb., 70c, postpaid.

Parsnips

CULTURAL DIRECTIONS. One ounce will sow 100 feet of drill; three to four pounds per acre. Sow in April or May. Parsnips require a long season to mature. Sow thickly, thin as for Carrots. Seed does not germinate well unless conditions are just right.

Hollow Crown Thick shoulder. This variety is more generally grown than any other sort; roots smooth, tender and sugary. Oz., 10c; ¼ lb., 25c; 1 lb., 70c, postpaid.

Long Smooth Dutch or Sugar Roots very long, slim, much sweeter than the Hollow Crown. Oz., 10c; ¼ lb., 25c; 1 lb., 70c, postpaid.

Short Thick A fine bunch vegetable, tops one-half size of Hollow Crown. Short, thick roots, free from strings, flavor much more delicate than other varieties of Parsnips. Fully a month earlier than Hollow Crown and reaches maturity in 100 days. Oz., 10c; ¼ lb., 25c; 1 lb., 70c, prepaid.

Garden Peas

CULTURAL DIRECTIONS. One quart will plant 100 feet of drill; about 56 pounds per acre. Peas do best on rich, sandy loam that has been well manured the previous season. Plant smooth, early sorts as soon as the ground can be worked in the spring. The wrinkled varieties are liable to rot if the soil is cold and wet, and should be planted later.

Little Marvel or Dark Podded Sutton's Excelsior 60 days. One of the most prolific of the second early sorts. Pods long. 3 to 4 inches, well filled with deliciously sweet peas. Vines about 15 inches in height. Lb., 25c, postpaid. Not prepaid, 5 lbs., \$1.00; 14 lbs. (1 pk.), \$2.25; 56 lbs. (1 bu.), \$8.00.

Little Gem 58 days. A second early, hardy variety. Prolific, bearing pods on both sides of the stalk, beginning near the ground. Pods medium length, round, and well filled to the end. Height of vine about fifteen inches. Seed green, wrinkled. Lb., 25c, postpaid. Not prepaid, 5 lbs., \$1.00; 14 lbs. (1 pk.), \$2.25; 56 lbs. (1 bu.), \$8.00.

Alaska 57 days. A small, smooth blue Pea, and one of the earliest. Grown largely by canners and market gardeners for early crop. Vines about two feet in height, pods small, but well filled. Can nearly all be harvested at one picking. Lb., 20c, postpaid. Not prepaid, 5 lbs., 70c; 15 lbs. (1 pk.), \$1.75; 60 lbs. (1 bu.), \$6.00.

American Wonder 60 days. One of the earliest and sweetest wrinkled Peas. Vines very dwarf and productive. Pods small, but well filled. The most delicious Pea for the home garden. Lb., 25c, postpaid. Not prepaid, 5 lbs., \$1.00; 14 lbs., (1 pk.), \$2.25; 56 lbs. (1 bu.), \$8.00.

★ **Improved Laxtonian** 62 days. The best of the Laxtonian type. Second early. A little earlier than the Gradus. Vine 16 inches high, sturdy, dark green and productive; pods dark green, four inches, broad, containing eight large peas of excellent quality. The best second early, big-podded sort. Lb., 25c, postpaid. Not prepaid, 5 lbs., \$1.00; 14 lbs. (1 pk.), \$2.25; 56 lbs. (1 bu.), \$8.00.

Champion of England 80 days. Vines 4 to 5 feet in height, productive. Pods 2 to 3 inches long, broad and well filled. Peas medium size, of unsurpassed sweetness. Lb., 25c, postpaid. Not prepaid, 5 lbs., \$1.00; 14 lbs., (1 pk.), \$2.25; 56 lbs. (1 bu.), \$8.00.

★ **World's Record** 58 days. A new variety on the order of Gradus, being slightly earlier, more productive and true to a fixed type. Grows about 2 feet in height, with large, dark green pods nearly 4 inches in length, broad, pointed and always well filled with large, sweet peas of splendid quality. An excellent, profitable sort for home or market garden. Lb., 25c, postpaid. Not prepaid, 5 lbs., \$1.00; 14 lbs. (1 pk.), \$2.25; 56 lbs. (1 bu.), \$8.00.

★ **Thomas Laxton** 62 days. One of the best second early sorts for the market gardeners. Vines of same height as the Gradus, but a little earlier, more hardy and productive. Pods long, blunt ended and well filled with large peas. Peas wrinkled.

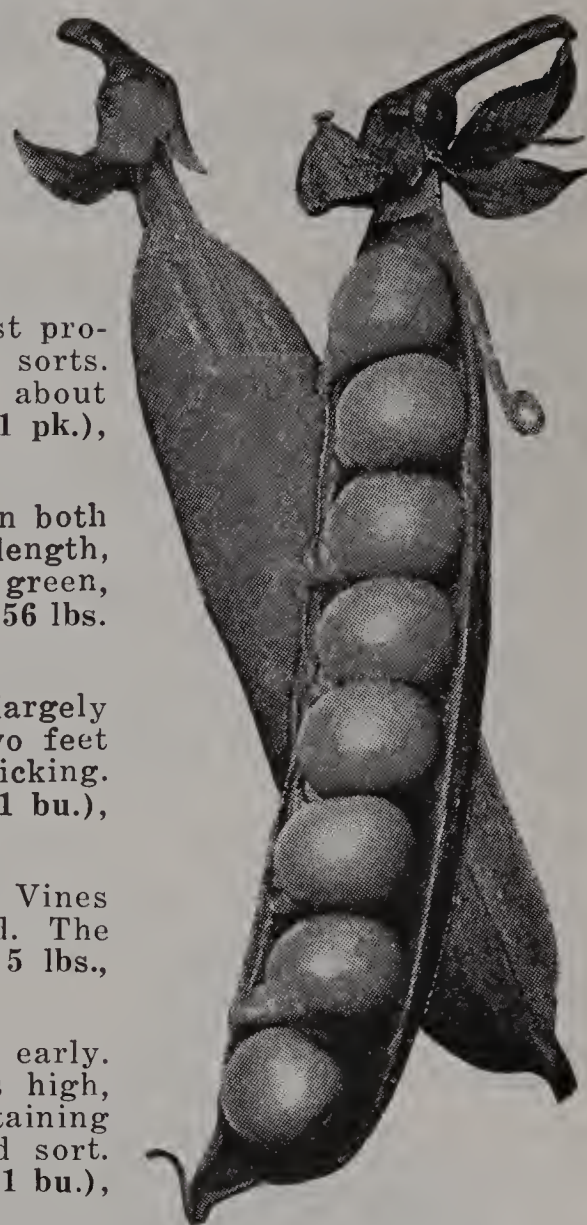
Lb., 25c, postpaid. Not prepaid, 5 lbs., \$1.00; 14 lbs. (1 pk.), \$2.25; 56 lbs. (1 bu.), \$8.00.

★ Dwarf Telephone

A splendid main crop Pea, coming between the Telephone and Stratagem. Of the Stratagem type, but a heavier yielder. Height 2½ feet. Foliage very heavy, sturdy and dark green. Pods 4½ inches long, dark green, broad, straight and pointed, containing nine large, medium dark green peas of the best quality. Lb., 25c, postpaid. Not prepaid, 5 lbs., \$1.00; 14 lbs. (1 pk.), \$2.25; 56 lbs. (1 bu.), \$8.00.



Little Marvel Peas



Improved Laxtonian
or Hundredfold

★ **Alderman** 72 days. A little later than the Telephone. Vines about four feet in height; very heavy foliage. One of the most productive sorts. Pods long, dark green, well filled; seed wrinkled. Lb., 25c, postpaid. Not prepaid, 5 lbs., \$1.00; 14 lbs. (1 pk.), \$2.25; 56 lbs. (1 bu.), \$8.00.

Telephone 72 days. A standard high quality, large-podded Pea, for main crop; productive; height 4½ feet. Vine and foliage strong and heavy, medium green. Pods 4½ inches long, medium green, straight, broad and pointed, well filled. Lb., 25c, postpaid. Not prepaid, 5 lbs., \$1.00; 14 lbs. (1 pk.), \$2.25; 56 lbs. (1 bu.), \$8.00.

Edible Pod Sugar Peas

The pods of the two varieties listed below are cooked with the peas. They have a high sugar content and make a delicious dish, and once tried, they will be regularly grown.

Dwarf Gray Sugar 62 days. A dwarf, edible pod variety. Vines about two feet high. Cook pods like string beans. Lb., 25c, postpaid. Not prepaid, 5 lbs., \$1.00; 14 lbs. (1 pk.), \$2.25; 56 lbs. (1 bu.), \$8.00.

Melting Sugar, or Edible Pod 70 days. A tall variety, bearing large, flat, brittle pods. These are sweet and are cut or broken and cooked like string beans. It is a delicious vegetable and should be better known and more generally used. Lb., 25c, postpaid. Not prepaid, 5 lbs., \$1.00; 14 lbs. (1 pk.), \$2.25; 56 lbs. (1 bu.), \$8.00.

The nationally known GRAND RAPIDS FORCING VARIETIES—Cucumber page 13, Lettuce page 15, Radish page 22, Tomato page 26. Include some of these seeds in your order and join the thousands of satisfied customers.



California
Wonder
Pepper

CULTURAL DIRECTIONS.

One ounce will produce about 2,000 plants; about 7,000 plants for an acre. Sow seed in hotbeds from February to April; transplant to open ground when all danger from frost is past, in rows about three feet apart and eighteen inches apart in the row. Seed can be sown in the open ground late in May, and thinned as above. Cover seed about half an inch.

Peppers

★ **California Wonder** Thickness of flesh alone, which is often $\frac{3}{8}$ of an inch, places this sweet pepper above all others. Vigorous growing plants, blocky fruit 5 inches long and 4 inches wide. When fully matured, it has a waxed appearance. Oz., 30c; $\frac{1}{4}$ lb., \$1.00; 1 lb., \$3.50, postpaid.

Harris' Earliest The earliest large pepper grown. Plant dwarf, compact in habit of growth. Most prolific. Peppers bell-shaped, about 4 inches long. They produce an enormous crop of fruits, which are perfectly mild and sweet. Oz., 30c; $\frac{1}{4}$ lb., \$1.00; 1 lb., \$3.50, postpaid.

Chinese Giant Mammoth fruits 12 to 15 inches in circumference. Flesh thick, tender, mild and sweet. Oz., 30c; $\frac{1}{4}$ lb., \$1.00; 1 lb., \$3.50, postpaid.

Harris' Early Giant The earliest and most prolific of all large Peppers. Slightly later than Harris' Earliest, is of dwarf, compact growth, bearing as many as 12 pendent fruits on a single plant. Fruit scarlet, measuring 5 inches long by $3\frac{1}{2}$ inches in diameter; 3-lobed, mild and sweet. A profitable Pepper for the market. Oz., 30c; $\frac{1}{4}$ lb., \$1.00; 1 lb., \$3.50, postpaid.

★ **King of the North** A late introduction and a winner, similar in type to Ruby King, but decidedly earlier. The plant is of medium size and prolific. The fruit is long, moderately slender, tapering to three or four points. Oz., 25c; $\frac{1}{4}$ lb., 80c; 1 lb., \$3.00, postpaid.

Pimento A rather late, very thick-fleshed, heart-shaped, smooth, mild, crimson variety; much used for salads. Oz., 25c; $\frac{1}{4}$ lb., 80c; 1 lb., \$3.00, postpaid.

Long Red Cayenne Pendent fruits about 5 inches long and $\frac{3}{4}$ inch in diameter at the base, often curved and twisted; bright red, hot and pungent. Oz., 25c; $\frac{1}{4}$ lb., 75c; 1 lb., \$2.40, postpaid.

Sweet Yellow The largest yellow Pepper. Skin golden yellow, flesh thick, very mild and sweet. Of about the same shape as the Bull Nose. Oz., 35c; $\frac{1}{4}$ lb., \$1.25; 1 lb., \$4.00, postpaid.

Bull Nose or Large Bell Large, bell-shaped, thick-fleshed fruit. Good for Man-go pickles. Oz., 25c; $\frac{1}{4}$ lb., 75c; 1 lb., \$2.40, postpaid.

World Beater The most prolific large Pepper. Fruit very large, about five inches long. Flesh thick, mild and sweet. Pepper tapering and of a bright ruby color when ripe and very attractive. Oz., 25c; $\frac{1}{4}$ lb., 75c; 1 lb., \$2.40, postpaid.

Ruby King One of the most profitable and satisfactory varieties for the home or market garden; plants are early, productive and of dwarf compact, upright growth; fruits pendent, often 4 to 6 inches long by 3 to 4 inches thick, tapering and of a bright ruby-red color; flesh is thick, mild and sweet. Oz., 25c; $\frac{1}{4}$ lb., 75c; 1 lb., \$2.40, postpaid.

Red Chili Small, red, cone-shaped. Very hot and prolific. Used for seasoning. Oz., 25c; $\frac{1}{4}$ lb., 75c; 1 lb., \$2.40, postpaid.

Pumpkins

CULTURAL DIRECTIONS.

One ounce of seed for 20 hills. About 3 pounds per acre. Usually grown in cornfields, but can be grown as a separate crop. Seed should be planted in hills eight to ten feet apart each way, after soil gets warm. Cultivate often until vines begin to run. Cut pumpkins after leaves die, leaving three to four inches of stem attached to fruit. Store in a dry place, and do not bruise.

★ **Connecticut Field** 120 days. Generally used for planting in corn for stock feeding; also makes good pies. Oz., 10c; $\frac{1}{4}$ lb., 25c; 1 lb., 75c, postpaid.

King of the Mammoths 120 days. The giant among pumpkins. Often grows two feet or more in diameter. Oz., 10c; $\frac{1}{4}$ lb., 25c; 1 lb., 75c, postpaid.

★ **Sugar Pie** 120 days. Fruit small, round, flattened at the ends, and slightly ribbed. Skin and flesh deep orange-yellow. Flesh very thick and of high quality. Oz., 10c; $\frac{1}{4}$ lb., 25c; 1 lb., 75c, postpaid.

Winter Luxury 100 days. Round, medium in size, with a golden yellow skin closely netted like a netted muskmelon; sweet and finely flavored and an exceptionally good keeper. Oz., 10c; $\frac{1}{4}$ lb., 20c; 1 lb., 50c, postpaid.

Golden Oblong One of the best pie and canning Pumpkins. Oblong in shape, averaging about twenty by ten inches. Skin golden yellow and very tough, making an excellent keeper. Flesh very thick, yellow and of fine quality and never stringy. Heavy yielder with fruit solid and heavy. Oz., 10c; $\frac{1}{4}$ lb., 20c; 1 lb., 50c, postpaid.

Japanese Pie 115 days. A large crook-necked sort. Skin green, striped yellow. Flesh yellow and of fine quality. Oz., 10c; $\frac{1}{4}$ lb., 25c; 1 lb., 75c, postpaid.



Sugar or Pie

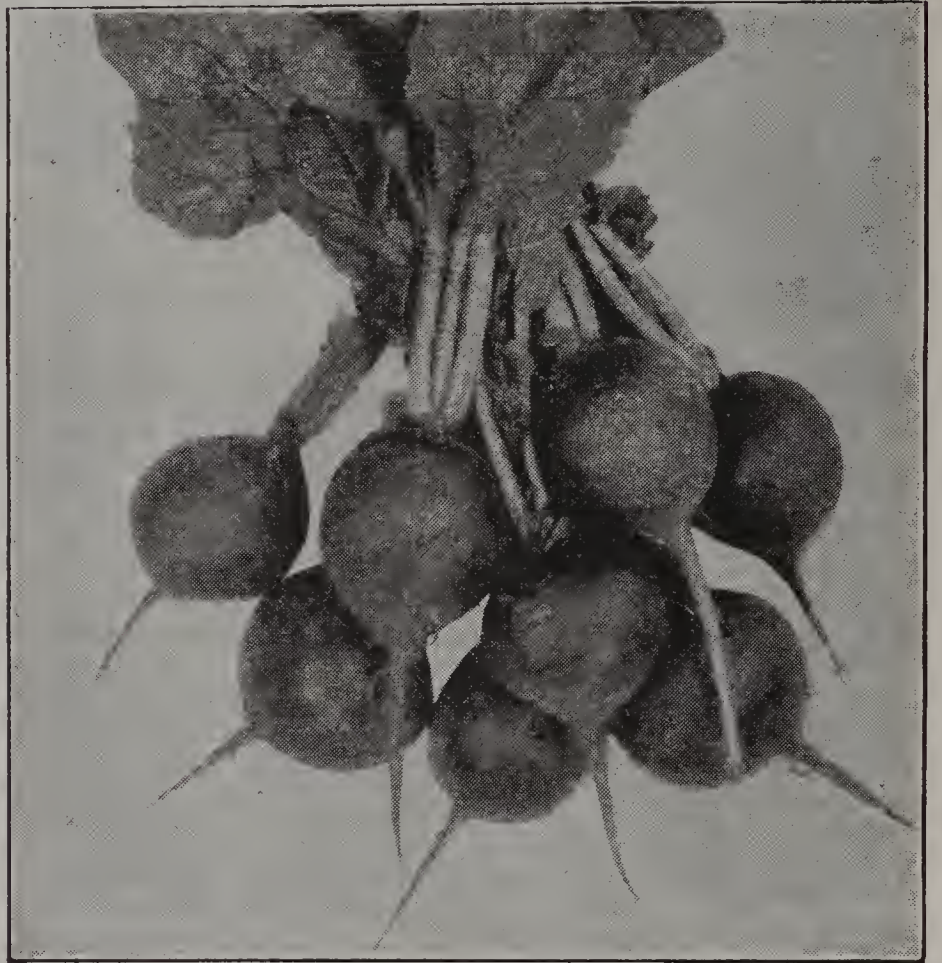


Grand Rapids Forcing Radish

★ **Early Scarlet Globe** 20 days. We have an exceptionally fine stock of this grand variety, which has been tested by having crops grown both in greenhouses and outdoors. Our new stock will not be sold until it is tested. It is one of the earliest forcing radishes, and does equally as well for outdoor culture. Roots are globe-shaped, of fair size, not apt to be pithy small tops crisp and tender color bright scarlet. Oz., 10c; ¼ lb., 20c; 1 lb., 60c, postpaid. Not prepaid, 10 lbs. at 50c per lb. If larger quantities are wanted, write for prices.

★ **Grand Rapids Forcing** 20 days. New, improved. The best greenhouse variety and the earliest of the Scarlet Globe type, but superior in every way for greenhouse forcing. When properly grown it is the most handsome and best forcing sort with the shortest top and the Radishes are ready to pull before you realize it on this account. Oz., 10c; ¼ lb., 25c; 1 lb., 70c, postpaid; 10-lb. lot, 65c per lb., not postpaid. If larger quantities are wanted, write for prices.

The Grand Rapids Forcing Varieties are nationally known. Turn to the others: Lettuce is described on page 15; Tomato on page 26; and Cucumber on page 13; also the inside front cover.



Early Scarlet Globe



White Icicle

★ **Icicle** 25 days. One of the earliest long varieties, white throughout. Very crisp and tender. Oz., 10c; ¼ lb., 20c; 1 lb., 50c, postpaid.

French Breakfast 20 days. Of oblong shape, small, quick growing, color rose-scarlet, with small white tip. Oz., 10c; ¼ lb., 20c; 1 lb., 50c, postpaid.

Cooper's Sparkler 20 days. White tip, quite similar to Scarlet Turnip White Tip as to size and time of maturity, only the Sparkler is more round or ball-shaped, and the white extends farther up the radish, making a more attractive bulb. Oz., 10c; ¼ lb., 20c; 1 lb., 50c, postpaid.

Scarlet Turnip White Tipped 30 days. Round, deep scarlet, shading to a white tip at the bottom. Very early. Oz., 10c; ¼ lb., 20c; 1 lb., 50c, postpaid.

Crimson Giant 28 days. Larger than any other extra early variety but does not become pithy. Crimson-carmine, turnip shaped, flesh firm, crisp and tender. Oz., 10c; ¼ lb., 20c; 1 lb., 50c, postpaid.

White Globe 18 days. One of the best of the white varieties, either for forcing or outdoor culture; more round than turnip-shaped; intermediate in size, always crisp, fine grained and tender. Oz., 10c; ¼ lb., 20c; 1 lb., 50c, postpaid.

★ This variety recommended by the Michigan State College.

The Best Winter Radishes

White Winter (Celestial). 55 days. Roots six to eight inches long, thick, cylindrical and smooth, with a beautiful white skin and flesh, the whitest and least pungent of the winter radishes. Oz., 10c; ¼ lb., 20c; 1 lb., 50c, postpaid.

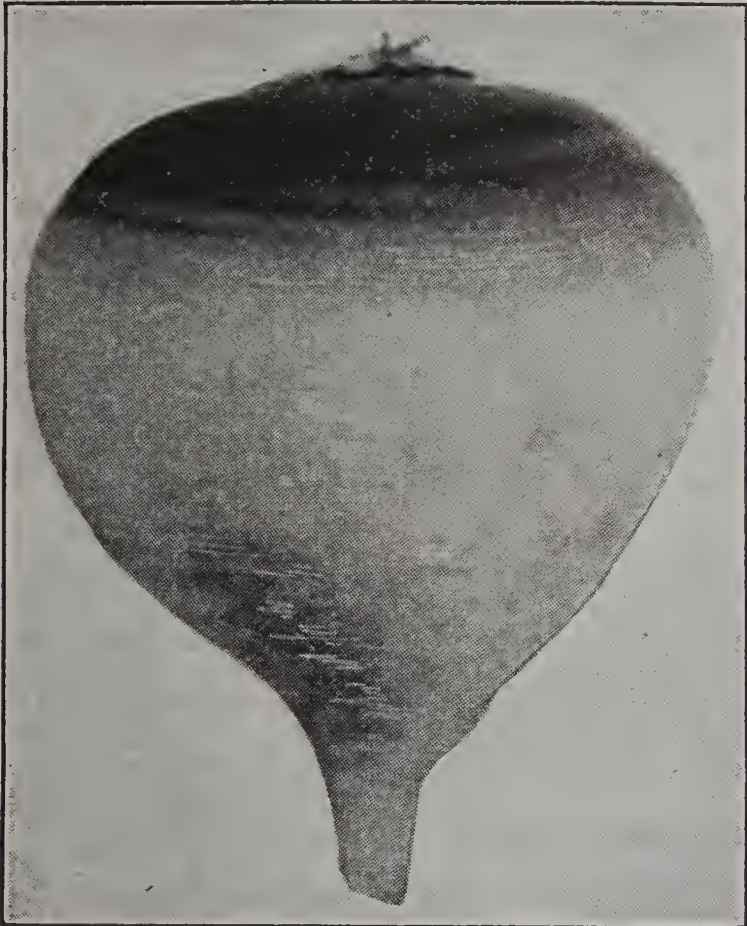
Chinese Rose Winter 55 days. Roots four or five inches long, blunt at both ends, about two inches thick. Skin smooth and bright, deep rose color. Flesh white and crisp. One of the best winter sorts. Oz., 10c; ¼ lb., 20c; 1 lb., 50c, postpaid.

Long Black Spanish One of the latest and hardiest varieties for Winter use; roots eight to nine inches long, two to three inches in diameter, and nearly black in color. Oz., 10c; ¼ lb., 20c; 1 lb., 50c, postpaid.

Round Black Spanish 58 days. Round, three to four inches in diameter. Skin almost black; flesh white, crisp and pungent. Oz., 10c; ¼ lb., 20c; 1 lb., 50c, postpaid.



Celestial
White Winter



American Purple Top Rutabaga

Rutabagas

Mature in 100 days.

American Purple Top A hardy, productive variety with small neck; roots large, globe-shaped, with small tap roots, bright yellow in color with purple top, solid, tender and sweet. Our strain is the best available. Oz., 10c; ¼ lb., 20c; 1 lb., 60c, postpaid.

Long Island, Improved Grows large, top-shaped; purple top, flesh yellow. Used for stock feeding or table use where a large Rutabaga is wanted. Oz., 10c; ¼ lb., 20c; 1 lb., 60c, postpaid.

Canadian Gem Golden yellow variety, globular shaped with small tap root. A very solid variety, tender and sweet. Oz., 10c; ¼ lb., 20c 1 lb., 60c, postpaid.

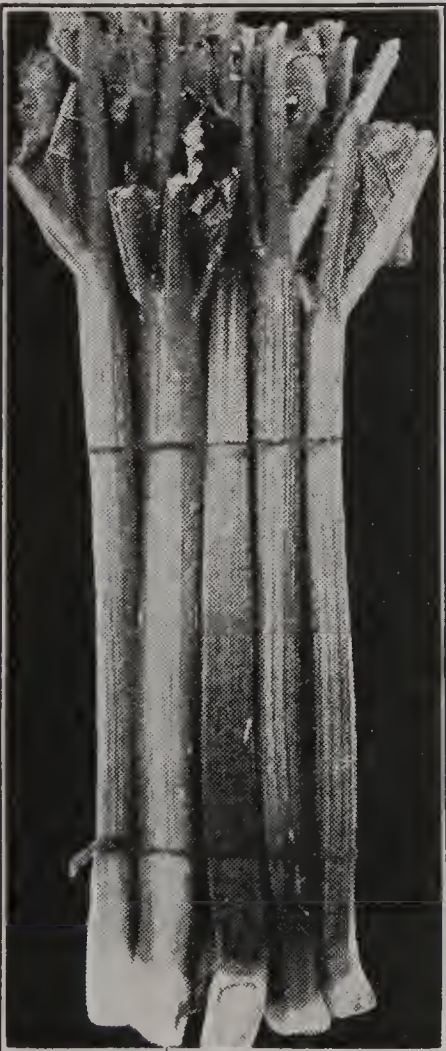
Rhubarb

Victoria One of the best market sorts; stalks a beautiful red. Oz., 15c; ¼ lb., 40c; 1 lb., \$1.25, postpaid.

Salsify or Vegetable Oyster

CULTURAL DIRECTIONS. One ounce to 75 feet of drill; five or six pounds to the acre. Sow the seed early in the spring in drills twelve inches apart and one inch deep. Thin to four or five inches apart. Like parsnips, they may be left in the ground all Winter and dug as soon as the ground is thawed.

Mammoth Sandwich Island A splendid variety producing large, thick, tapering white roots, very uniform, mild and delicious in flavor. A popular sort with the market gardeners. Oz., 15c; ¼ lb., 40c; 1 lb., \$1.25, postpaid.



Rhubarb



Salsify

INOCULATE ALL LEGUME SEEDS WITH

NITRAGIN

OVER FORTY YEARS OF SERVICE

When ordering, Always state name of seed.

ALFALFA, all Clovers

Size	Retail
½ bu. each...	.30
1 bu. each...	.50
2½ bu. each...	1.00

PEAS (All Varieties) VETCHES (All Varieties)

½ bu. each...	.25
1 bu. each...	.40
1½ bu. each...	.60
5 bu. each...	1.70
12½ bu. each...	4.00

BEANS String, Wax, Kidney

½ bu. each...	.25
1 bu. each...	.40
5 bu. each...	1.70

LESPEDEZA

Size	Retail
1 bu. each....	.30
2 bu. each....	.50
5 bu. each....	1.00

SOYBEANS, LIMA BEANS, COW PEAS, PEANUTS

1 bu. each....	.30
2 bu. each....	.50
5 bu. each....	1.00
10 bu. each....	1.40
25 bu. each....	2.90

GARDEN SIZE

Garden Peas & Beans
Sweet Peas & Lupines
Enough for 6 lbs. seed
Retail Price 10c each

Spinach Improved Varieties

CULTURAL DIRECTIONS. One ounce to 100 feet of drill; eight to ten pounds per acre. Sow early for spring crop; in August for fall use; and if sown from the middle to last of September, and protected during the winter with a light covering of straw, it will be ready for use very early in the spring.

★**Long Standing Bloomsdale** 45 days. It is early and hardy and a decided improvement on the old strain. Will stand ten to fourteen days before bolting to seed; has a heavier leaf texture, more crumpled or savoyed, and will also resist the heat much better. Oz., 10c; ¼ lb., 15c; 1 lb., 30c, postpaid. Not prepaid, 10 lbs., \$2.25; 25 lbs., \$5.00.

Round Summer Thick Leaved 45 days. An old standard. Grand Rapids growers use this variety very largely for main crop for spring, summer and fall. Oz., 10c; ¼ lb., 15c; 1 lb., 30c, postpaid. Not prepaid, 10 lbs., \$2.25; 25 lbs., \$5.00.

Viking This new variety may well be described as a dark green Nobel. Excellent for market gardens and canning. Plant large, spreading, vigorous, long standing and heavily productive. Leaves very large, thick and dark green. Oz., 10c; ¼ lb., 15c; 1 lb., 30c, postpaid. Not prepaid, 10 lbs., \$2.25; 25 lbs., \$5.00.



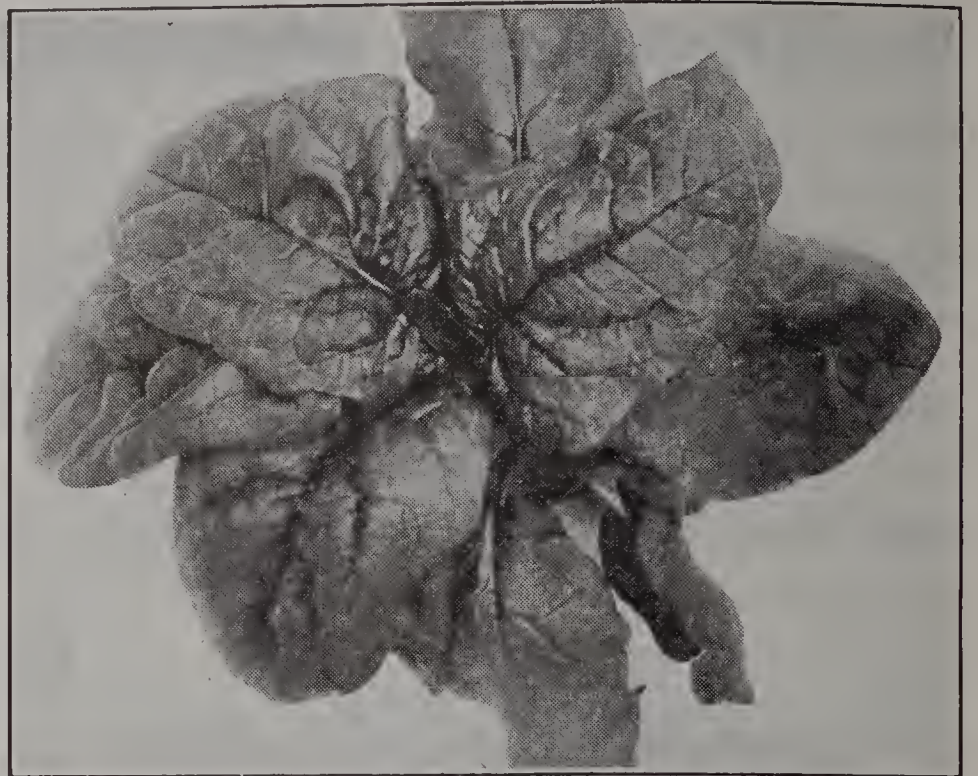
New Savoy Dark Green

Giant Nobel 43 days. Similar to Thick Leaf. An erect, vigorous growing, long standing Spinach, slow to run to seed. Leaves large, unusually broad, firm and thick, with a rounded top. Smooth, medium green in color and the largest of any Spinach. Oz., 10c; ¼ lb., 15c; 1 lb., 30c, postpaid. Not prepaid, 10 lbs., \$2.25; 25 lbs., \$5.00.

Resisto A new Spinach with the growing characteristics of King of Denmark, and with better long-standing qualities than Bloomsdale. The leaves are not flat and smooth, but somewhat savoyed and a dark green color. Besides it has remarkable resistance against disease and heat. Oz., 10c; ¼ lb., 15c; 1 lb., 30c, postpaid. Not prepaid, 10 lbs., \$2.25; 25 lbs., \$5.00.

★**King of Denmark Spinach** 48 days. A standard variety for market gardeners, for spring planting. It will stand longer than any other variety before going to seed. Leaves large, rounded, and somewhat blistered. Color very deep green. Heavy yielder and excellent quality. Oz., 10c; ¼ lb., 15c; 1 lb., 30c, postpaid. Not prepaid, 10 lbs., \$2.25; 25 lbs., \$5.00.

New Zealand 60 days. Entirely distinct from the other varieties; plant tall and spreading, leaves medium green, rather small and pointed. Prickly seeded. Oz., 10c; ¼ lb., 15c; 1 lb., 30c, postpaid.



Giant Nobel Spinach

Princess Juliana 50 days. It is said to be the most thoroughbred type of long standing Spinach ever introduced. In form it is a dense, compact rosette with very short petioles the leaves are large and rounded, thick in texture, very much blistered and crumpled and of an intense, very dark green color; will hold up well in shipping and is slow to run to seed. Oz., 10c; ¼ lb., 15c; 1 lb., 30c, postpaid. Not prepaid, 10 lbs., \$2.25; 25 lbs., \$5.00.

New Savoy Dark Green A very dark green extra curled, Savoy type, of compact habit. It is more long standing than Bloomsdale Long Standing, of a superior color and in our opinion, the best type of Savoy Spinach existent. Given special mention in "All America Selections." Oz., 10c; ¼ lb., 15c; 1 lb., 30c, postpaid. Not prepaid, 10 lbs., \$2.25; 25 lbs., \$5.25.

Virginia Savoy Blight-Resistant Spinach 35 days. Virginia Savoy is characterized by the large leaves and general Flanders type of growth. The low-growing, wide-spreading habit makes it most desirable for winter Spinach. Plants of this type attain a very large size in late fall and carry well into early spring. A single plant often weighs more than a pound. Oz., 10c; ¼ lb., 15c; 1 lb., 30c, postpaid. Not prepaid, 10 lbs., \$2.25; 25 lbs., \$5.00.

Victoria 50 days. Makes a flat rosette with very short stems. The leaves are large, thick and wrinkled, blunt or rounded, and dark green in color. Stands hot weather well; slow to go to seed. Oz., 10c; ¼ lb., 15c; 1 lb., 30c, postpaid. Not prepaid, 10 lbs., \$2.25; 25 lbs., \$5.00.



Long Standing Bloomsdale

Write For Special Prices in Larger Quantities

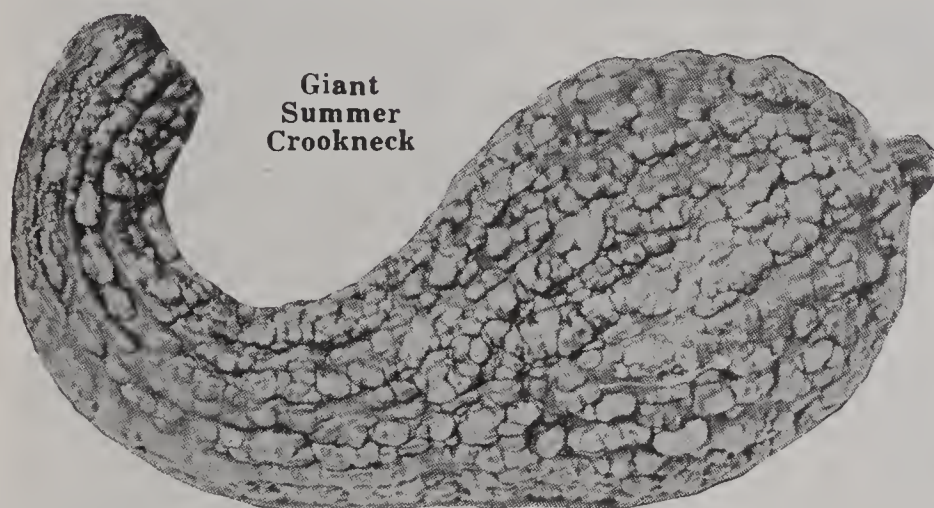
Squash

CULTURAL DIRECTIONS. For Summer Squash, one ounce to 25 hills; two to three pounds per acre. For Winter Squash, one ounce to ten hills; about three pounds per acre. After danger of frost is past, plant eight to ten seeds to the hill for Summer sorts, about four feet apart, the last of May; and Winter varieties in hills about eight feet apart, from the middle of June to July first. Do not bruise or break the stems of Winter Squash when gathering. Store in a cool, dry place.

Giant Summer Crookneck 55 days. The largest and one of the earliest Summer varieties; fruits often 2 to 2½ feet long, very warty and deep orange in color. Oz., 10c; ¼ lb., 25c; 1 lb., 75c, postpaid.

Golden Summer Crookneck A standard early and productive Summer Squash; fruits about a foot long, moderately warted and of a bright yellow color. Oz., 10c; ¼ lb., 25c; 1 lb., 75c, postpaid.

Table Queen 58 days. A Squash fit for a Queen. Cut in half and baked for twenty minutes, it is delicious. Wonderful producer. Fruits are from 6 to 8 inches long and 4 to 6 inches in diameter. Shell hard and smooth, dark green with sometimes a blotch of red at pointed end. Will keep as long as the Hubbard. Oz., 10c; ¼ lb., 25c; 1 lb., 75c, postpaid.



Giant
Summer
Crookneck

Early White Bush Scallop 60 days. Very early Summer Squash. Oz., 10c; ¼ lb., 30c; 1 lb., \$1.00, postpaid.

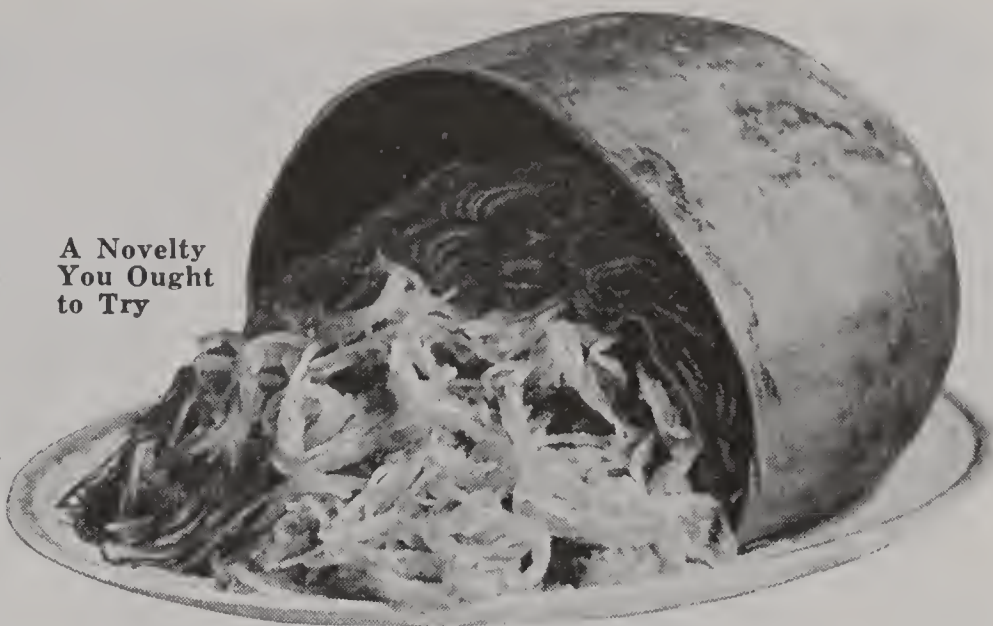
Early Yellow Bush Scallop 60 days. A true bush. Earlier and smaller than the above. Oz., 10c; ¼ lb., 30c; 1 lb., \$1.00, postpaid.

Banana 120 days. A prolific, oblong variety 2½ feet in length by 6 inches in diameter, having a gray-green shell. Oz., 10c; ¼ lb., 30c; 1 lb., \$1.00, postpaid.



Improved
Hubbard Squash

A Novelty
You Ought
to Try



Golden Macaroni or Spaghetti Squash

Golden Macaroni or Spaghetti Entirely new, from the Orient. Grows readily. Oval in shape 8 to 10 inches long. Bright orange-buff color, and can be kept nearly all winter. Cook by boiling the whole squash for 30 minutes. Then open by cutting in half, and your spaghetti is there ready to eat. Season with salt, pepper and butter. Serve hot. Pkt., 10c; oz., 25c; ¼ lb., 75c.

Delicious 115 days. A fall and winter variety, medium size, top-shaped, dark green, flesh orange, very deep and delicious. Oz., 10c; ¼ lb., 30c; 1 lb., \$1.00, postpaid.

Boston Marrow 100 days. Fall and winter variety, oval, color when ripe bright orange, fine grained and excellent flavor. Oz., 10c; ¼ lb., 30c; 1 lb., \$1.00, postpaid.

Italian Cucuzzi Caravazzi A long light green variety, much in demand for Italian trade. Oz., 40c; ¼ lb., \$1.25; 1 lb., \$4.00, postpaid.

Cocozella di Napoli (Italian Vegetable Marrow). 60 days. Oz., 10c; ¼ lb., 30c; 1 lb., \$1.00, postpaid.

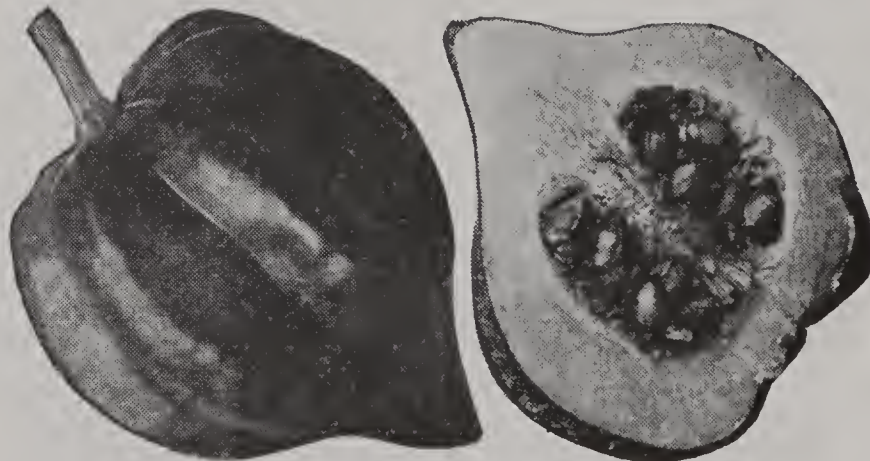


Table Queen Squash

The Four Hubbards

Golden Hubbard 110 days. Similar to the old Hubbard in form and habit, though smaller and decidedly earlier; shell moderately warted, rich orange-red; flesh deep orange, fine quality; good keeper. Oz., 10c; ¼ lb., 30c; 1 lb., \$1.10, postpaid.

★ **Improved Hubbard** 120 days. The standard winter squash. Shell moderately warted; deep dark bronze-green; flesh bright yellow, fine grained, thick and dry. Oz., 10c; ¼ lb., 30c; 1 lb., \$1.10, postpaid.

★ **Chicago Warted Hubbard** 120 days. Similar in quality and form to the Hubbard, but fruit larger and a little later. Oz., 10c; ¼ lb., 30c; 1 lb., \$1.10, postpaid.

Blue Hubbard 125 days. A new type of Hubbard Squash and said to excel all in the superior quality of its flesh. Similar to the original Hubbard but having a hard blue-gray shell. Oz., 10c; ¼ lb., 30c; 1 lb., \$1.10, postpaid.



Grand Rapids
Forcing Tomatoes

Grand Rapids Forcing TOMATOES

Grown in Greenhouses Everywhere

Improved Growers Strain

It's improved and is one of the best forcing Tomatoes on the market today. It is a larger size, averaging about three or four to a pound and eliminating the green core. The yield is very heavy as the intense sexual vigor of the plant causes a great production of pollen and this is probably the only Tomato that is self-fertilizing or pollenizing, which insures a heavy setting of fruit.

This Tomato is red in color, of good size, firm and meaty. The skin is tough and is a wonderful shipper and keeper.

The plant is a vigorous, robust grower and should be trimmed to about 6 feet in height. Price: Oz., 50c; $\frac{1}{4}$ lb., \$2.00; $\frac{1}{2}$ lb., \$3.50, postpaid.

Ideal Forcing Tomatoes

A new variety originated by Mr. John Nellis of Grand Rapids, Mich. Mr. Eugene Davis and Prof. Waide, now of Ohio, selected the original parent plant of the Ideal Tomato. It is the result of crossing the Bonny Best with the Comet and has the heavy yielding quality and the tough skin of the Comet and the high color of the Bonny Best. Mr. Nellis has selected and reselected the plants until they have arrived at a high state of purity; and breed absolutely true to type. The plant does not grow as tall as the Grand Rapids Forcing but will yield as many pounds per plant. It has no green, unripe core, is dark red in color, not an acid fruit but of excellent quality, and is a larger Tomato and a splendid shipper. Oz., 75c; $\frac{1}{4}$ lb., \$2.50; $\frac{1}{2}$ lb., \$4.50, postpaid.



Ideal Forcing Tomatoes

★ Michigan State Forcing

A new and distinctly different, self-pollinating, wilt-resisting, greenhouse Tomato developed at Michigan State College. A vigorous plant with dark green foliage, producing pollen in short-styled flowers under poor light conditions, which insures self-pollination. Exceptionally attractive, medium size fruits (4 to 5 ounces) are borne in clusters of 5 to 11. Ripe fruits globular in shape, with a slightly greater depth than diameter. Practically free from blemishes and misshapen fruits. Stem and cavity small, shallow, and very smooth with small corky ring. Blossom end well rounded with very small scar. The outer walls of fruit are thicker, insuring good shipping qualities, and very thick inner walls. Cells 3 to 6 with seeds. The firmness of the fruit makes it possible to allow them to ripen on vines without loss to the grower. For best results with this variety we suggest that between $4\frac{1}{2}$ and $5\frac{1}{2}$ square feet be allowed each plant, and adequate fertilization be given. Oz., 75c; $\frac{1}{4}$ lb., \$2.50; $\frac{1}{2}$ lb., \$4.50; 1 lb., \$9.00, postpaid.



Michigan
State
Forcing
Tomatoes

★ This variety recommended by the Michigan State College.



Bonny Best Tomato

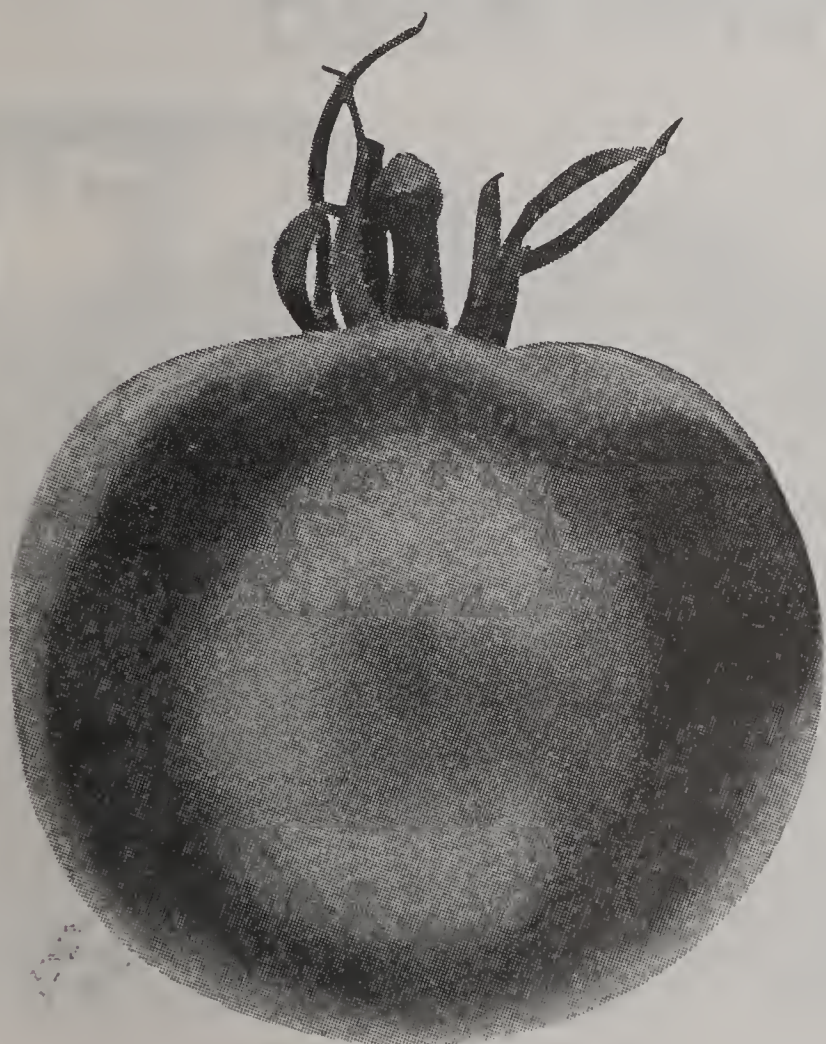
Bonny Best 103 days. Unexcelled as a general purpose Tomato; particularly valuable for forcing under glass and as a canning variety in northern sections. Fruits evenly colored bright deep scarlet-red; medium large; flattened globe-shaped; smooth and firm. Oz., 25c; ¼ lb., 75c; 1 lb., \$2.50, postpaid.

Early Baltimore 70 days. Selection of Marglobe, disease resistant, adapted to all soils. Fruit somewhat smaller, bright red color, and very prolific. Oz., 25c; ¼ lb., 80c; 1 lb., \$3.00, postpaid.

★ **John Baer** 108 days. An early, productive, red Tomato, on the order of the Chalk's Jewel. Splendid producer. Oz., 25c; ¼ lb., 80c; 1 lb., \$3.00, postpaid.

New Stone 116 days. The standard and general favorite with truckers and canners, always dependable, very vigorous and productive, fruits round, large, solid, smooth and deep red in color. Oz., 20c; ¼ lb., 75c; 1 lb., \$2.50, postpaid.

Dwarf Stone 132 days. The best of the dwarf Tomatoes. Fruits large, smooth, very solid, of a deep scarlet color. Oz., 40c; ¼ lb., \$1.25; 1 lb., \$4.50, postpaid.



Break o' Day Tomato

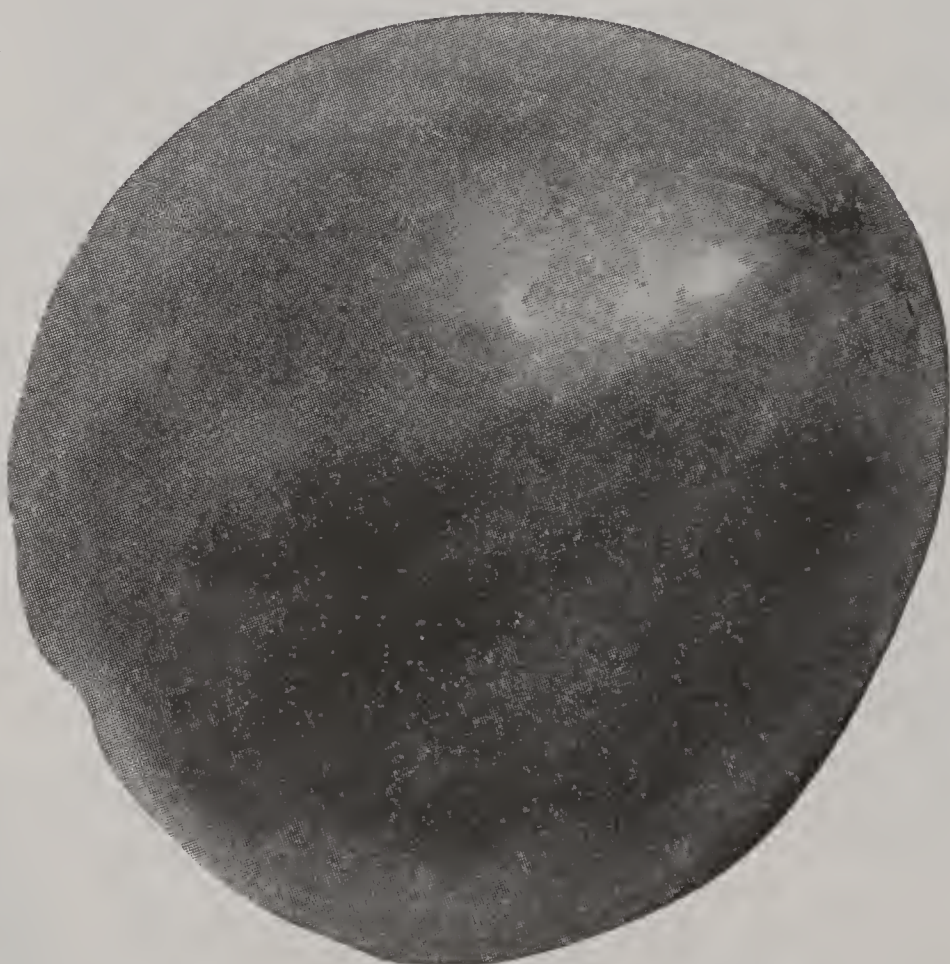
Oxheart 120 days. An attractive pink-skinned variety. It is exceedingly smooth and tender and almost seedless. It has that delicious mild flavor. Rich soil adds greatly to its productiveness. A late variety. Oz., 40c; ¼ lb., \$1.40; 1 lb., \$5.00, postpaid.

Break o' Day 94 days. The earliest disease-resistant, scarlet-fruited, meaty Tomato yet introduced, 10 to 12 days earlier than Marglobe and very productive. Fruits are of the Marglobe type, deep globe-shaped, solid, meaty, with few seeds and a beautiful scarlet color. Excellent for home gardens, truck farmers or canners. Oz., 30c; ¼ lb., \$1.00; 1 lb., \$3.50, postpaid.

Scarlet Dawn 94 days. Vines of medium growth, fairly open, very prolific. Fruits medium large with thick wall structure, globular, smooth, free from flat sides, bright scarlet ripening well to the stem, exceptionally attractive. Highly desirable for home garden and shipping; also for early canning. Oz., 35c; ¼ lb., \$1.25; 1 lb., \$4.00, postpaid.

Red Head A large globe-shape, bright scarlet Tomato. Fruit is very smooth, meaty, runs quite uniform size, very productive. Oz., 25c; ¼ lb., 80c; 1 lb., \$3.00, postpaid.

Golden Queen 83 days. The best large yellow Tomato. Fruits are large, deep but flattened, bright golden yellow, firm, smooth, and attractive. Oz., 50c; ¼ lb., \$1.50, postpaid.



Oxheart Tomato

Pritchard or Scarlet Topper 120 days. Very productive early sort. The splendid, globe-shaped, smooth fruits grow to a good size and attain an attractive bright red color. Flesh firm, mild-flavored, free from acidity, with no core and small seed cavity. Plants grow compact and robust and produce a heavy crop when planted in good rich soil. Oz., 25c; ¼ lb., 75c; 1 lb., \$2.50, postpaid.

Ponderosa 118 days. A very large, purple-fruited Tomato; solid, with but few seeds, and not acid. Fine for slicing. Oz., 40c; ¼ lb., \$1.25; 1 lb., \$4.50, postpaid.



Marglobe Tomato

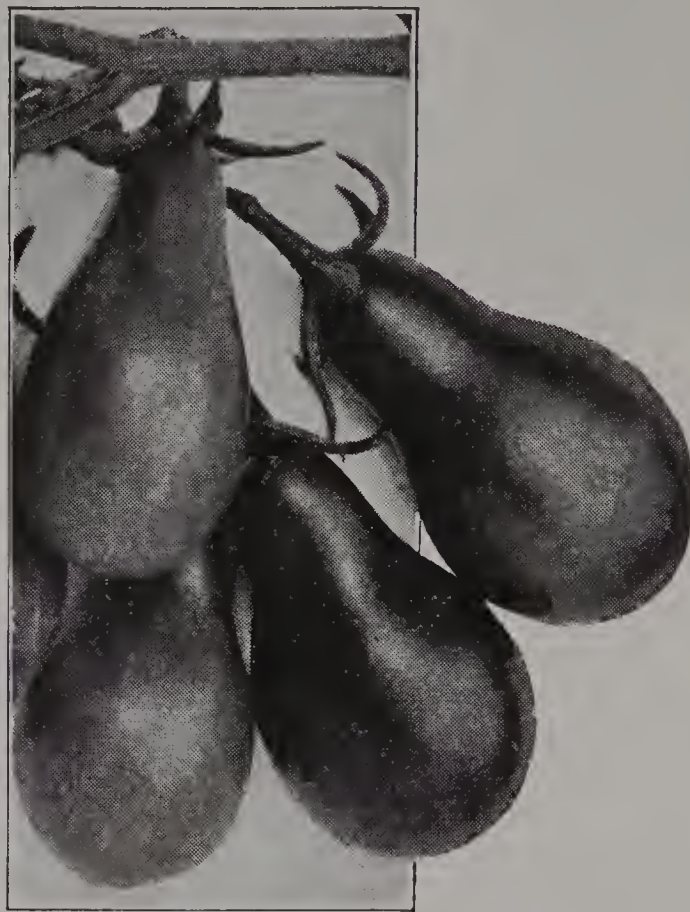
Marglobe The Wilt and Nailhead Rust-Resistant Sort. 114 days. Was produced by crossing Livingston's Globe with one or more other varieties. It is a vigorous grower whether in greenhouse or field. A bright red in color, of large size, almost round, and very productive. It is very promising. Oz., 25c; $\frac{1}{4}$ lb., 80c; 1 lb., \$3.00, postpaid.

Nystate 100 days. Originated from New York Experimental Station, being a good second early variety. Fruits large, smooth, oval, ends well rounded, color deep red, crimson inside. Ideal for market and canning uses. Oz., 35c; $\frac{1}{4}$ lb., \$1.25; 1 lb., \$4.00, postpaid.

Earliana 94 days. The most productive, first early red Tomato and a profitable sort for the market gardener. Vines are small but vigorous, fruits medium to large in size, exceptionally smooth and solid; color bright deep scarlet. Oz., 25c; $\frac{1}{4}$ lb., 80c; 1 lb., \$3.00, postpaid.

Penn State 100 days. (Certified.) A remarkable yield-er. Medium dark green foliage, and rather coarse. The fruit is perfectly and evenly colored, a rich scarlet. Its rapid maturity makes it an early variety. Oz., 75c; $\frac{1}{4}$ lb., \$2.50; 1 lb., \$9.00, postpaid.

Chalk's Early Jewel 104 days. An exceptionally fine early variety. About ten days later than the Earliana. Fruit round, smooth and solid. Color crimson. Extremely productive. Oz., 25c; $\frac{1}{4}$ lb., 75c; 1 lb., \$2.50, postpaid.



Yellow Pear

Small Fruited Tomatoes Used for pickles, preserves, canning, etc. Easily grown and yield well. **Yellow Plum, Red Pear, Yellow Pear and Red Peach.** Price of any of the four varieties: $\frac{1}{4}$ oz., 15c; oz., 50c, postpaid. Special: One packet of each of these four varieties for 35c, postpaid.

Certified Tomato Seed

Grown in Michigan and certified by the Michigan Department of Agriculture.

CULTURAL DIRECTIONS. One ounce will produce about 3000 plants; about 5000 plants to the acre.

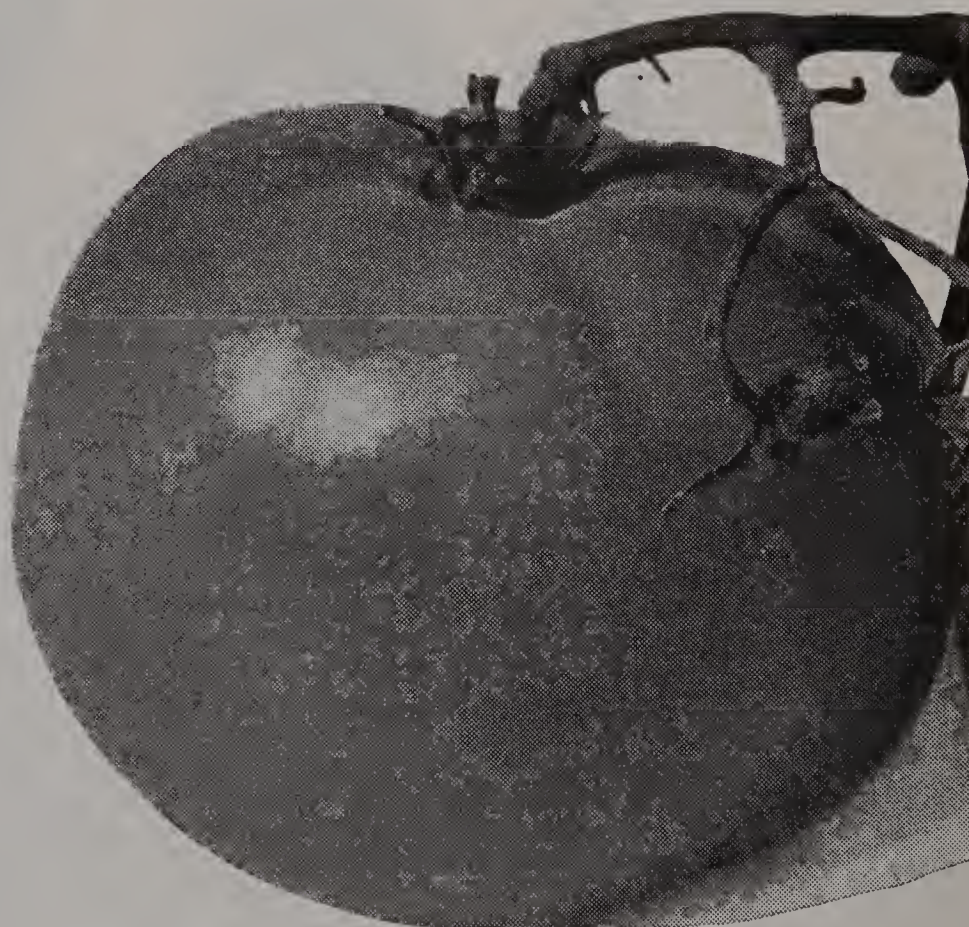
Certified Rutgers 114 days. It has a thick outer and inner wall of solid meat. Globe shaped, scarlet-red in color, resembling Marglobe. The Rutgers is in great demand for all purposes. Oz., 25c; $\frac{1}{4}$ lb., 80c; 1 lb., \$3.00, postpaid.

Certified Bonny Best Oz., 25c; $\frac{1}{4}$ lb., 80c; 1 lb., \$3.00, postpaid.

Certified New Stone Oz., 25c; $\frac{1}{4}$ lb., 80c; 1 lb., \$3.00, postpaid.

Certified Greater Baltimore 100 days. Second early and main crop variety. Deep scarlet-red in color, vigorous and very productive. Preferred by canners on account of its heavy yield. Oz., 25c; $\frac{1}{4}$ lb., 80c; 1 lb., \$3.00, postpaid.

Certified Early Baltimore Oz., 25c; $\frac{1}{4}$ lb., 80c; 1 lb., \$3.00, postpaid.



Greater Baltimore Tomato



Purple Top White Globe Turnip

Turnips

CULTURAL DIRECTIONS. One ounce to 150 feet of drill; one pound per acre. For main crop, sow in July or August. Sow either broadcast or in drills.

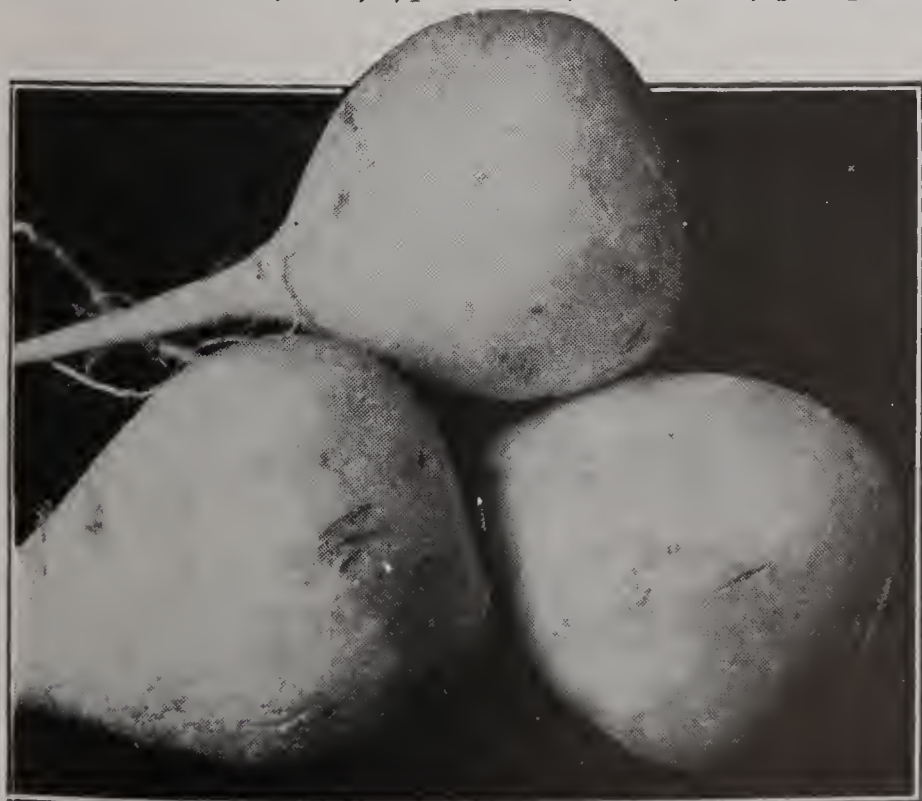
★**Purple Top White Globe** 55 days. Not so early as White Egg, perfect globe in shape. Flesh and skin white, colored purple or red above ground. Very fine grained and sweet. The most attractive Turnip and best seller. Oz., 10c; ¼ lb., 20c; 1 lb., 50c, postpaid.

Extra Early White Milan 40 days. The earliest bulbs, small, clear white, and flat. One of the best for early bunching. Oz., 10c; ¼ lb., 20c; 1 lb., 50c, postpaid.

Purple Top Strap Leaved 45 days. A very early, flat variety, medium size; purple or red above ground and white below. Oz., 10c; ¼ lb., 20c; 1 lb., 50c, postpaid.

Golden Ball 65 days. Tops small, roots medium size, round, smooth and deep yellow. Fine grained, flesh firm, crisp and sweet. Oz., 10c; ¼ lb., 20c; 1 lb., 50c, postpaid.

White Egg 50 days. An early egg-shaped variety. Roots smooth, clear white. One of the best for market. Oz., 10c; ¼ lb., 20c; 1 lb., 50c, postpaid.



White Egg

Extra Early Purple Top Milan This splendid Turnip is the earliest in cultivation. Very flat, of medium size with bright purple top; strap leaved. Quality of the best. Planted extensively for early market crop but is not so good for summer planting. Reaches marketable size in about 50 days. Oz., 10c; ¼ lb., 25c; 1 lb., 50c, postpaid.



Yellow Globe Turnip

Yellow Globe 75 days. A round, smooth, light yellow variety of medium size and good quality. Oz., 10c; ¼ lb., 20c; 1 lb., 50c, postpaid.

Cow Horn 65 days. Roots long, slightly crooked; clear white. Often sown to plow under for fertilizer. Oz., 10c; ¼ lb., 20c; 1 lb., 50c, postpaid.

Yellow Aberdeen A late, medium sized, long keeping variety, roots round, yellow with a purple top, flesh tender. Oz., 10c; ¼ lb., 20c; 1 lb., 50c, postpaid.

SEED TREATMENT PAYS

Treat your seeds with Semesan disinfectants and assure yourself of a good crop.

Seed treatment pays no matter what kind of seed is treated. We handle a complete line.

Herbs

For early use, sow seed in hotbed or in open ground in May, in rows one foot apart. Cover very lightly and thin to six inches apart in the row. They should be cut on a dry day, just before they come into full blossom. Tie in bunches and keep where they will dry quickly.

ANISE. Used for flavoring. Oz., 15c, postpaid.

CARAWAY. Seeds used for flavoring. Oz., 15c, postpaid.

CORIANDER. Seeds used for flavoring. Oz., 10c, postpaid.

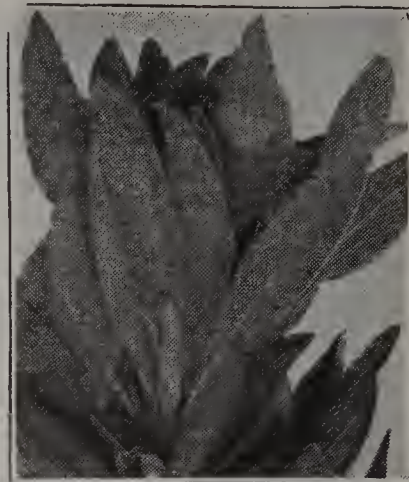
DILL. Used for flavoring pickles. Oz., 10c; ¼ lb., 25c; 1 lb., 90c, postpaid.



Dill



Sweet Marjoram



Sage

SWEET MARJORAM. Used for seasoning. Oz., 20c, postpaid.

SAGE. Very aromatic. Oz., 40c, postpaid.

SUMMER SAVORY. Leaves used for flavoring soups. Oz., 20c, postpaid.



*marvelously flavored
— mineral rich
vegetables*

Good seed of true strain and strong vitality is of the first importance in growing good vegetables. But even good seed cannot produce the tender vegetables you desire unless, after germination, the young plants are able to secure ELEVEN plant food elements from the soil.

Tests have proved that vegetables grown in soils rich in minerals are a better source of vital minerals in your diet. Vigoro supplies plants with an abundance of the eleven vital elements plants need from the soil. Vigoro makes vegetables crisp, tender, flavorful, and rich in vital mineral elements.

Try Vigoro on your garden this year. It is the square meal for all plants.



VIGORO

Complete plant food

Vigoro Is a Product of Swift

We Recommend VIGORO, the Complete Plant Food, to All Home Gardeners!



Making a Lawn and Its Care

Preparing the Soil

The most desirable soils for the lawn are the loams. If the soil available for the building of the lawn is a tight clay or a sandy soil, it should be made as nearly like a loam as possible.

Even such simple tasks as spading are important and should be done with care. The depth of the surface soil largely determines the depth to which one should spade. If the top soil is six inches or less in thickness, work it to the depth of the surface soil. Do not turn up the subsoil.

To get the best results from spading, each shovelful of soil is turned over and placed upon the edge of the hole away from the spader. It is then pulverized with a tap of the spade. This not only breaks up the mass but carries the granulated soil back into the hole from which it was originally taken.

After the spaded soil has been well pulverized, grade the soil to slope gently from the house. The grading will prevent water from standing around the foundation of the house. Next, level and roll until the seed bed is firm.

Applying Plant Food

When the seed bed is completed, plant food should be applied. The lawn is never so effectively fed as just before the grass seed is sown. The plant food should be spread evenly over the surface of the soil at the rate of four pounds per hundred square feet, and worked into the top few inches.

Sowing Seed

After the plant food has been worked into the soil, the seed should be spread uniformly over the surface at the rate of four to five pounds per one thousand square feet of soil.

A cover of clean straw or coarse cheesecloth on the steep slopes will help to prevent washing which may occur before the grass becomes established.

Maintaining the New Lawn

Regardless of how carefully the new lawn has been started it must be painstakingly cared for during the first summer, if it is to develop into a lawn with a uniform, thick turf.

The new lawn should be watered often enough to keep the soil moist. Frequent and light waterings are best until after the grass becomes established. When there is no longer danger of washing the young plants from their anchorage, the soil should be thoroughly soaked to a good depth at each watering. The water should always be applied in the form of a fine spray.

Careful clipping of the grass is necessary to maintain a tidy appearance of the lawn and to prevent annual weeds from going to seed. Frequent clippings, which do not allow the grass to become more than three inches high, are desirable. Never cut the grass shorter than one and one-half inches. The clippings should always be removed from the lawn; otherwise there is danger of their matting and injuring the grass. Lawn clippings make excellent raw material for the compost pile.

Feeding

About eight or ten weeks after the lawn is seeded, the young grass should again be fed with plant food. The application is made at the rate of two pounds per one hundred square feet of lawn.

Plant food should be applied when the grass is dry and then brushed from the grass with a broom or the back of a rake. The lawn should immediately be given a thorough soaking to wash the plant food from the grass and carry it into the soil.

Care of the Established Lawn

If the lawn was properly built and has received careful attention during the first year of its growth, its future care should be easy. The program for the established lawn includes feeding, watering, clipping, and similar operations which are necessary in maintaining a good lawn. A lawn which is properly cared for improves each year as the grass becomes more dense and more uniform.

Spring Care of Lawn

As soon as favorable weather comes in the spring, the lawn should be rolled.

Any thin or bare spots should be reseeded. These may at times appear in any lawn and should be taken care of at the time they occur. Loosen the surface of the soil in such areas and reseed.

Importance of Feeding

Well-fed grass withstands the inroads of weeds and also resists injury from the attacks of certain diseases.

Regular feeding will reduce the amount of reseeding necessary. The greater development of the root system and the ability to store up reserves of food material, make well-fed grass plants able to withstand the extremes of either winter or summer weather and to maintain a dense turf year after year.

Proper feeding results in an improvement in the condition of the lawn soil. As new roots are sent out by vigorous grass plants, the old ones die off and are responsible for adding large amounts of organic matter to the soil. This is the only way that the organic content of the soil of the established lawn can be increased. The activity and decay of the roots also keeps the soil in good physical condition. Manure or similar materials applied on the lawn never penetrate deeply enough to add any appreciable amount of organic matter to the soil.

Summer Care of the Lawn

Special care must be given the lawn throughout the hot months of summer. If excellent growth and vigor have been maintained during the spring, the lawn can be kept in a green, vigorous condition during the summer by careful watering, feeding, and clipping.

Whenever applying water to the established lawn, be liberal with the amount used. Light sprinklings which wet only the upper surface of the soil are very often more detrimental than beneficial.

Smaller amounts of plant food should be applied during the summer months than in the spring. Two pounds per hundred square feet is sufficient to keep the plants in vigorous growth, if made at intervals of six to eight weeks.

The lawn should be thoroughly soaked following the application of plant food. Apply sufficient water to soak the soil surface to a depth of several inches.

Grade "A" Sunny Lawn Mixture

This is our own mixture, containing Kentucky Blue Grass, Fancy Red Top, Perennial Rye Grass, and 10% pure White Clover. Wonderful results are and have been obtained with this mixture. We use only the very best of seeds obtainable, of lasting value and hardiness, giving you a beautiful and permanent lawn that will last for years.

Bent Grass One of the most valuable lawn grasses. Exceptionally good for golf courses, greens, etc., because of its short growth and deep green, fine-leaved foliage. Requires very rich soil and plenty of moisture.

Kentucky Blue Grass, June Grass One of the best grasses for permanency. For lawns or pasture, it has no superior. Does well in any soil and stands the summer heat remarkably well. As it takes some time to become established, it is usually sown in mixtures.

Canadian Blue Grass Succeeds on soil too poor for Kentucky Blue Grass. For shady spots it is advisable to use, as it is hardier and is better adapted to Michigan weather conditions.

Rough Stalked Meadow (Poa Trivialis). Very closely related to the Kentucky Blue Grass. It is mostly used in shady places and will thrive in any good soil.

Domestic Rye An annual grass, coarser than blue grass, being used extensively on banks and terraces.

Grade "A" Shady Lawn Mixture

Contains Kentucky Blue Grass, Red Top, Rough Stalked Meadow Grass, Poa trivialis and New Zealand Chewings Fescue. This mixture is also our own being mixed by ourselves especially for the shady spots. We use only the very best of seeds obtainable and as more care and attention is required we have used the hardier grasses, that will make a dense, thick growth in light soils and a very satisfactory lawn in shady places or where sun is available only a part of the time.

White Clover (Dutch). A small, low growing variety. It is largely used in lawns and pastures. It makes a small, close, compact growth covering the ground like a carpet. Its blossoms are round, white and sweet scented, with numerous leaves of bright green color.

Red Top A very hardy perennial grass, succeeding best on moist land. Valuable for lawn or pasture, and will produce large crops of good hay.

Perennial Rye (English). A desirable grass for lawn or pasture. It forms a heavy close sod of medium fine grass and grows quickly after being cut.

Creeping or Red Fescue Resists extreme drought, thrives on inferior soil, gravelly banks and exposed hills.

You Can Grow Lawns and Flowers as Pictured in This Catalog!

The high quality seed we offer you has all the fine characteristics you desire bred right into the strain. With ordinary cultural care you can duplicate the success of the master gardeners right in your garden.

But this must be borne in mind. Plants require eleven food elements from the soil for the finest growth. The safe, sure way to make certain that your plants will be properly fed is to feed them VIGORO. Vigoro is the complete plant food made by Swift & Company. It is odorless, sanitary, and economical.



VIGORO
Complete plant food
A Product of Swift

Vigoro Prices

100-lb. bag	\$4.00	10-lb. pkg.	\$0.85
50-lb. bag	2.50	5-lb. pkg.45
25-lb. bag	1.50	1-lb. pkg.10

Vigoro Spreaders

Model B Spreader. Hopper 20 lbs., each	\$ 3.10
Junior Spreader. Hopper 35 lbs., each	6.25
Standard Spreader. Hopper 65 lbs., each	12.25
Special Spreader. Hopper 100 lbs., each	19.75

Any of these Fertilizer Spreaders can be used for sowing lawn seed, lime, etc.

NOT POSTPAID



FLOWER SEED DEPARTMENT

We are convinced that many of the failures with flower seeds are due to lack of proper conditions, and while it would be impossible in the space at our disposal in this catalog to give explicit directions for each and every variety which we offer, we feel sure that if the general directions given below are followed, success will be the rule.

All of our flower seeds are listed by their common name in strict alphabetical order, together with the botanical name for your guidance.

Success With Flower Seeds

For all flower seeds which should be started indoors, the best plan is to sow in earthenware seed pans or boxes (about 2 inches deep) which should be filled to the depth of an inch with any rough material that will furnish perfect drainage. The upper inch should be nicely sifted soil, composed, if possible, of about one-third each of sand, leaf mould and light garden loam. Press firmly and evenly and water thoroughly the day before sowing. Sow the seeds thinly over the surface, cover about one-eighth of an inch and press firmly. When the seedlings are large enough to handle, they should be transplanted into similarly prepared boxes an inch apart each way, or put into small pots and kept in same until time to plant out in the open ground. At all times they should have an abundance of air, otherwise the young seedlings are liable to "damp off."

For most of the ordinary annual flowers, the simplest method is to sow directly out-of-doors when danger of frost is past in the space where they are intended to flower. The ground should be dug and raked fine on the surface, sowing the seeds evenly and thinly, covering not over 4 times their size, and firming the soil over them. Should they come up too thickly, as most of them are likely to do, thin out so that the plants will stand from 4 to 12 inches apart, according to the variety.

How to Sow Flower Seeds

It will prove quite an advantage to mix all small seeds with sand or dry soil and scatter broadcast. This separates the seeds and is quite an advantage in thinning out or transplanting the young plants as those that remain are undisturbed. A common mistake in sowing flower seeds, is covering too deeply. The exception to this is the Sweet Pea, which is seldom planted deep enough. As a general rule, cover small seeds only to the depth of the thickness of the seeds; always press the earth after sowing all flower seeds, else there is danger of their drying up before the roots can get firm hold of the soil. Seed of the hardier annuals may be sown where they are to grow; but as a rule, it is preferable to transplant, as the plants are generally stronger and stand the drought better. During very dry weather, and when the seedlings are first set out, they should be watered frequently.

The weeds should be kept down and the ground loosened often, so that the plants will receive the full benefit of the rains and dews, which they will not if the ground is allowed to become hard and baked.

Annuals are those flowers which bloom and die the same year; grown from seed exclusively.

Biennials bloom and die the second year from the seeding time.

Perennials grow the plant the first year but do not flower until the second year and then bloom every year.

The letter (A) following variety indicates Annuals; (B) the Biennials; (P) the Perennials.



Sweet Alyssum

Alyssum (A) (SWEET ALYSSUM)

Very popular border flower. Dwarf habit, blooming until killed by frost. Fine for beds, borders and vases. Little Gem. Erect; white. $\frac{1}{4}$ oz., 20c; pkt., 10c.

Alyssum (P) (SWEET ALYSSUM)

Saxatile compactum (Basket of Gold). 9 inches high. Blooms in May and June, producing masses of golden flowers very early. $\frac{1}{4}$ oz., 25c; pkt., 10c.

Ageratum (A) (FLOSSFLOWER)

One of the best Summer blooming plants. They are rapid growers; early and constant bloomers.

Mexicanum Tall. 18 inches. Beautiful, soft lavender-blue, of free branching habit. $\frac{1}{4}$ oz., 20c; pkt., 10c.

Blue Cap. Selected. 6 inches. Definitely more dwarf, more compact in habit with small leaves. Bright, deep, rich lavender-blue. $\frac{1}{4}$ oz., 60c; pkt., 10c.



Ageratum

Wilt-Resistant Asters (A)

Giant Crego. The flowers are of immense size, usually measuring from four to five inches in diameter, and borne on stems 12 inches or more in length. Mixed, all colors. $\frac{1}{4}$ oz., 45c; oz., \$1.50; pkt., 10c.

Queen of the Market. The best early Aster, usually in full bloom two weeks before most other sorts begin to blossom. Of graceful spreading habit. Mixed, all colors. $\frac{1}{4}$ oz., 45c; oz., \$1.50; pkt., 10c.

American Beauty. Late flowering. Plants are of branching habit, commencing to bloom in early September and lasting until destroyed by frost. Flowers are large, borne on long and stout stems from 18 to 24 inches, making them most desirable for cut flowers. Mixed colors. $\frac{1}{4}$ oz., 60c; pkt., 10c.

Heart of France. A new dark ruby-red variety; large, double flowers, a beautiful type. The most outstanding Aster grown. $\frac{1}{4}$ oz., 50c; pkt., 10c.

Giant California Sunshine. The flowers are large, with loosely placed outer petals contrasting with the creamy yellow or blue centers, giving a lazy effect which is quite delightful. The rogues and off types bloom first and the Giant Sunshine later. Mixed colors. $\frac{1}{4}$ oz., 70c; trade packet, 20c.

Giant Branching. The branching habit is accompanied by vigor of growth and profusion of bloom. The flowers are large, very double, stems long and colors vivid. Mixed colors. $\frac{1}{4}$ oz., 45c; 1 oz., \$1.40; trade packet, 45c.



Giant California Sunshine Aster

Balsam (A) (LADY SLIPPER)

Double Camellia-Flowered Mixed. An old and favorite garden flower, producing its gorgeous masses of beautiful colored, double flowers in the greatest profusion. 1½ to 2 feet. $\frac{1}{4}$ oz., 25c; pkt., 10c.

Calendula (A) (POT MARIGOLD)

Orange King. The outer petals are slightly imbricated, while those in the center are curved like those of the peony. Color glowing orange. Oz., 50c; pkt., 10c.

The Ball. It has fine stems, immense double flower of a brilliant glisteny orange. A great favorite on the Chicago cut flower market. $\frac{1}{4}$ oz., 50c; pkt., 10c.

California Poppy (A) (ESCHSCHOLTZIA)

Especially valuable for growing in flower beds and masses. Sow where plants are to bloom. Bright, showy flowers and feathered foliage. Good for cut flowers.

California Golden. Large yellow flowers. Oz., 60c; pkt., 10c.



Calendula

Baby's Breath (A) (GYPSOPHILA)

Graceful plants of fairy-like growth. Large flowering, pure white, of free easy growth. Much in demand for cutting and combining with other flowers for bouquets and vases. Several sowings should be made during the season to keep up the supply. Oz., 20c; pkt., 10c.



California Poppies



Canterbury Bells

Canterbury Bells (B) (CAMPANULA)

This old-fashioned flower is a favorite with all, stately and showy and of the easiest growth. For best results seed should be sown every year.

Single Mixed. $\frac{1}{4}$ oz., 15c; pkt., 10c.

Double Mixed. $\frac{1}{4}$ oz., 20c; pkt., 10c.

Calycanthemum (Cup and Saucer). 2 ft. June to August. Mixed colors. $\frac{1}{4}$ oz., 40c; pkt., 10c.

Calliopsis (A) (TICKSEED)

Very graceful border plants, supplying throughout Summer an abundance of elegant, showy flowers which are greatly prized for bouquets and vases. Will thrive anywhere. 6 in. to 2 ft. Double mixed, all colors. Oz., 30c; pkt., 10c.

Candytuft (A)

This is one of the most prized garden annuals. Easily grown from seed and does not need transplanting. Fine for cut flowers. Mixed. Oz., 25c; pkt., 10c.

Cardinal Climber (A)

This is a very attractive, strong and rapid grower, attaining a height of 25 feet, with beautiful fern-like lacinated foliage and literally covered with a blaze of fiery cardinal-red flowers from mid-summer to frost. $\frac{1}{4}$ oz., 25c; pkt., 10c.

Carnations (A)

Always in demand and not hard to grow, being hardy and free flowering. It is one of the most valuable of Summer flowers.

Marguerite. Double Mixed. $\frac{1}{4}$ oz., 50c; pkt., 10c.



Centaurea

Castor Bean (RICINUS) (A)

Decorative plant with fern-like foliage, giving to the garden a magnificent sub-tropical effect; even a single plant forms a pyramid of leaves.

Zanzibariensis. Leaves vary in color from light green to purplish red. $\frac{1}{4}$ lb., 50c; oz., 15c; pkt., 10c.

Celosia (A) (COXCOMB)

Very popular annuals of easy culture, producing large, ornamental, comb-like heads like ruffled chenille. Prized for pots or Summer flower beds. Tall Coxcomb, Mixed. 18 to 24 inches. $\frac{1}{4}$ oz., 40c; pkt., 10c.

Chinese Woolflower (Celosia Childsi). Plants grow 2 to 3 ft. high, the bloom starting early with a central head, round and globular, which often reaches the immense size of 2 ft. in circumference. Scores of branches are thrown out, each bearing a ball of scarlet wool. $\frac{1}{4}$ oz., 40c; pkt., 10c.



Chinese Woolflower

Centaurea (A)

A very popular annual that will always charm by its simple beauty.

Cyanus (Bachelor's Buttons). $\frac{1}{4}$ oz., 20c; pkt., 10c.

Coleus (A)**(FOLIAGE PLANTS)**

Bedding plants, growing about 1 foot high. Their foliage is highly ornamental. Easy to raise from seed. Sow seed indoors. Extra large. Choice Mixed. $\frac{1}{8}$ oz., 90c; pkt., 25c.

Columbine (P)**(AQUILEGIA)**

This beautiful plant thrives in all kinds of soil; graceful foliage, flowers abundantly from early May until the last of June. Single Mixed, $\frac{1}{4}$ oz., 25c; pkt., 10c. Double Mixed, $\frac{1}{4}$ oz., 25c; pkt., 10c.



Columbine—Aquilegia

Cosmos (A)

This is one of the most showy and useful of our garden plants. Plants are very bushy, a compact mass. Flowers borne on long delicate stems and are similar to single dahlias. Foliage very finely cut. 4 to 6 ft.

Klondyke, Orange Flare. Orange Flare will flower in the North in less than four months from seed and continue to grow and bloom with increasing freedom until killed by frost. As it is a tropical plant it should not be sown out-of-doors until the ground is warm. Give it a full sun in the garden. Cut flowers should be taken when newly opened with low centers when they will keep several days in water. $\frac{1}{4}$ oz., 35c; oz., \$1.00; trade packet, 25c.

EARLY EXPRESS PINK. A new variety and the earliest known, coming into bloom in from 45 to 50 days from the time the seed is sown. The plants grow about 2½ to 3 feet high and are covered with bright pink flowers. Oz., 60c; pkt., 10c.

Early Flowering Mammoth, Mixed. Oz., 30c; pkt., 10c.

Giant Mixed. Oz., 25c; pkt., 10c.



Coreopsis

Coreopsis (P)

This is one of the finest of hardy plants, with large, showy, bright yellow flowers produced in the greatest abundance from June till frost. As cut flowers they stand near the head among hardy plants. Oz., 30c; pkt., 10c.

Cypress Vine (A)

For trailing upon a light ornamental trellis the Cypress Vine cannot be excelled. It has a profusion of scarlet or white star-shaped blossoms, and finely cut foliage. Mixed. Oz., 30c; pkt., 10c.



Cosmos, Klondyke Orange Flare

Double Daisy (P)
(BELLIS PERENNIS)

A favorite low growing spring flowering plant. Loves a shady place and rich soil. 6-8 in. Double choice mixture. $\frac{1}{8}$ oz., 75c; pkt., 10c.

Delphinium (P)
(PERENNIAL LARKSPUR)

Blackmore and Langdon Strain. Tall, graceful spikes of bloom, covered from top to bottom with captivating blooms in charming color combinations. All the clear shades of blue with many opaline variations. $\frac{1}{4}$ oz., 85c; trade packet, 50c.

Wrexham Strain. (Hollyhock Delphinium). The chief distinguishing features are the extraordinary length and the tapering and spire-like shape of the spikes; the rich and varied tints; the very remarkable extension of the flowering period. $\frac{1}{4}$ oz., \$1.40; trade packet, 50c.

Pacific Giants, Mixed. This new strain produces plants that are 60-65 per cent mildew-resistant. The flowers are immense size, tightly set on straight stems. The flowers do not shatter and are fine for cut flowers. $\frac{1}{8}$ oz., \$2.00; $\frac{1}{4}$ oz., \$3.50; trade packet, \$1.25.

Chinese Perennial Mixed. $\frac{1}{4}$ oz., 50c; pkt., 10c.

Forget-Me-Not (B)
(MYOSOTIS)

They are considered among the best Spring flowers. They prefer moist, cool soil, and will bloom freely in Fall and early Spring.

Indigo. Royal blue. $\frac{1}{4}$ oz., 40c; pkt., 10c.

Victoria. Sky-blue. $\frac{1}{4}$ oz., 60c; pkt., 10c.

Victoria Rosea. Pink. $\frac{1}{4}$ oz., 70c; pkt., 10c.

Four O'clock (A)
(MIRABILIS)

Marvel of Peru. Mixed colors. $\frac{1}{4}$ lb., 50c; oz., 20c; pkt., 10c.



Delphinium—Larkspur

Foxglove (B)
(DIGITALIS)

Bearing long spikes of beautifully colored flowers; fine for planting in hardy borders or among shrubbery. Mixed. $\frac{1}{4}$ oz., 20c; pkt., 10c.

Gaillardia (A)
(BLANKET FLOWER)

Picta Lorenziana. Double flowers, mixed colors. Oz., 30c; pkt., 10c.

Gaillardia (P)
(BLANKET FLOWER)

Bloom from June to October. Their long flowering period, long stems and bright colors make these one of the most valuable perennials, being easily grown in beds and borders.

Grandiflora. Mixed, single. $\frac{1}{4}$ oz., 50c; pkt., 10c.



Gaillardia



Forget-Me-Not

Hollyhocks (P)

Make a fine row in the garden and an excellent background to cover a high wall or fence. 6 to 8 ft.

Double Mixed. Double and semi-double. $\frac{1}{4}$ oz., 40c; pkt., 10c.

Larkspur (A)

These handsome flowers are very effective in borders and planted amongst shrubs. The graceful spikes of blooms are much valued for vases. They continue long in bloom.

Double Mixed, all colors. Oz., 40c; pkt., 10c.

Giant Hyacinth-Flowered. Mixed. 3 ft. Derives its name from the striking resemblance of the flowers to the Double Hyacinth. Delicate colors. Oz., 50c; pkt., 10c.

FOR PERENNIAL VARIETIES, see DELPHINIUM.

Marigold (A) (TAGETES)

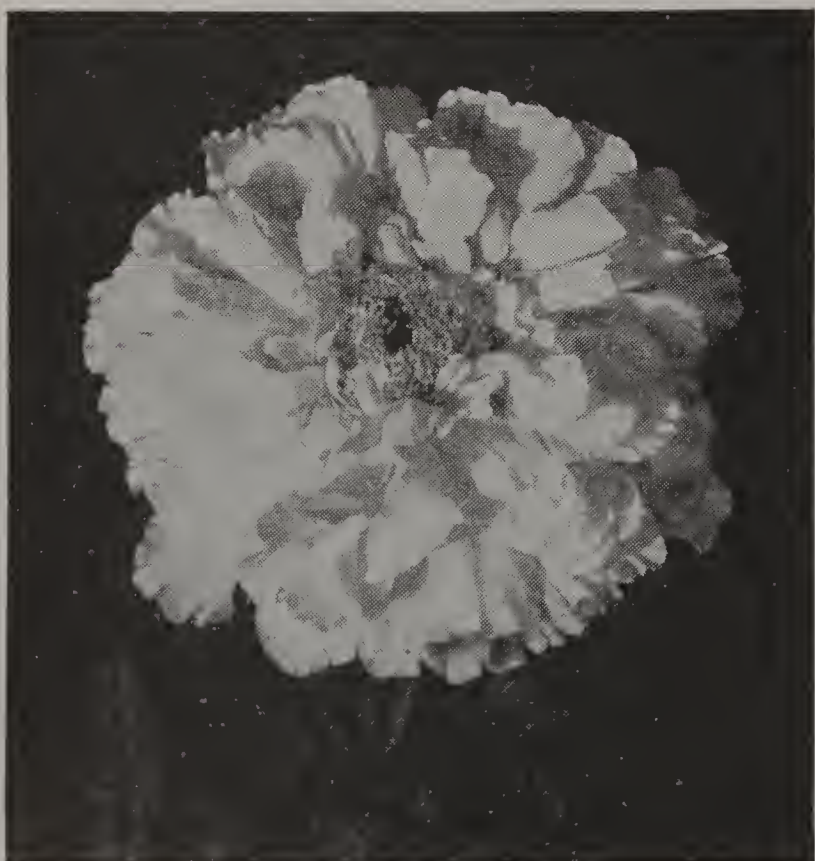
Sunset Giants. Huge flowers with a color range through orange, yellow and primrose. A tall variety and a beauty. $\frac{1}{4}$ oz., 50c; 1 oz., \$1.80; pkt., 10c.

Guinea Gold. 2 to 2½ ft. An unusual type of Marigold, color orange flushed with gold. Nearly all flowers are double or semi-double and their odor is less pungent than that of other Marigolds. Oz., \$1.20; $\frac{1}{4}$ oz., 40c; pkt., 10c.

Yellow Supreme. A large, fluffy, well rounded bloom of delicately milk-honey fragrance, with broad, loose frilled petals of a rich, creamy lemon color. Plants are practically free from the objectionable Marigold odor. Oz., \$1.25; trade packet, 25c.

Double Tall African. $\frac{1}{4}$ oz., 20c; pkt., 10c.

Double Dwarf French. $\frac{1}{4}$ oz., 20c; pkt., 10c.



Yellow Supreme Marigold



Double Hollyhocks

Mignonette (A)

Machet. The best for all purposes. Of dwarf habit, with very large red flowers and handsome foliage. $\frac{1}{4}$ oz., 25c; pkt., 10c.



Giant Hyacinth-Flowered Larkspur



Giant Cornell

Morning Glory (A) (CONVOLVULUS)

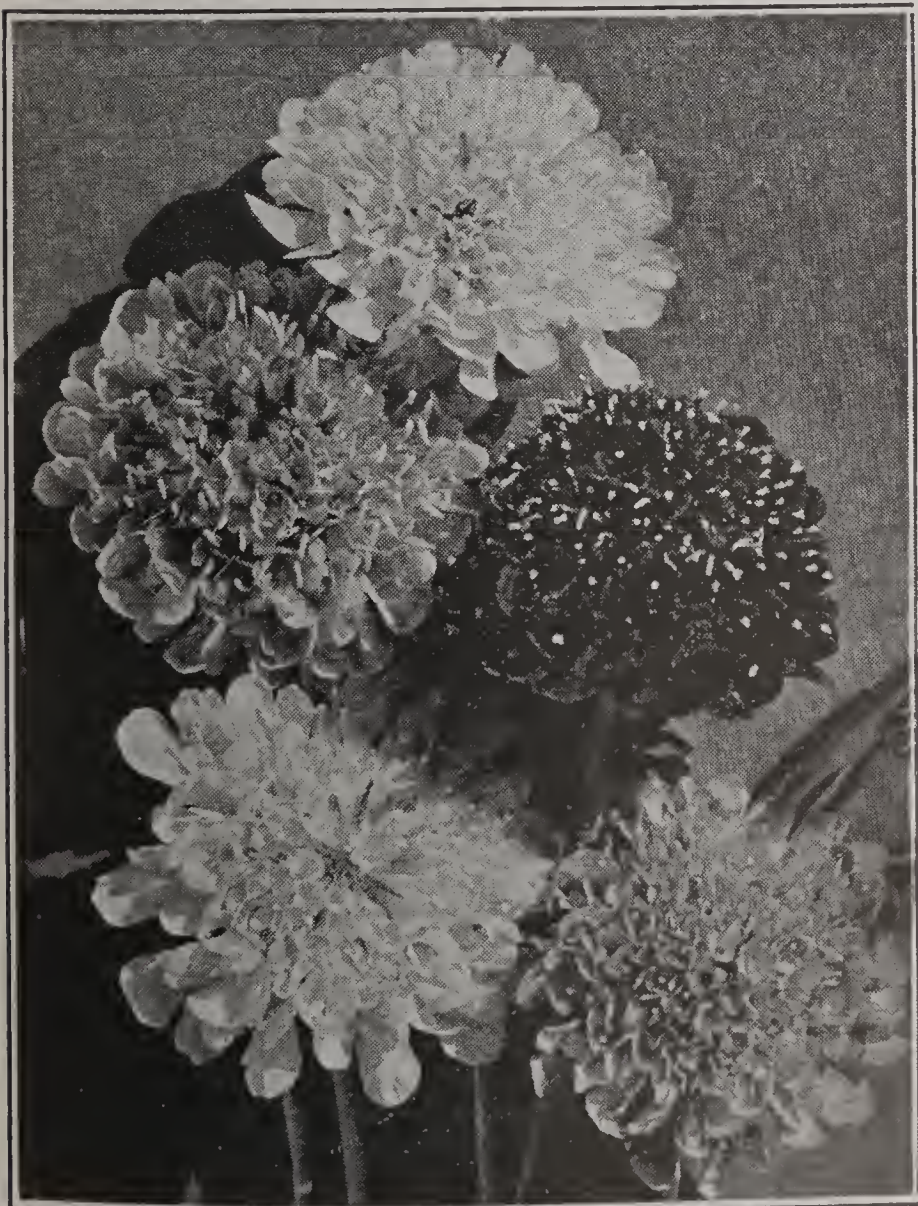
Deservedly very popular as they are one of the most free flowering and rapid growing plants in cultivation; the beauty and delicacy of their brilliant flowers are unsurpassed. Soaking the seed in warm water for an hour or two hastens germination.

Common, Mixed. Oz., 20c; pkt., 10c.

Japanese, Mixed. Oz., 20c; pkt., 10c.

Heavenly Blue. Oz., 75c; pkt., 10c.

Giant Cornell. Red with white edge. The best red large flowered morning glory. Oz., \$1.60; ¼ oz., 50c; trade packet, 25c.



Mourning Bride (Scabiosa) A

Mourning Bride (A) (SCABIOSA)

This is an old favorite and of late years has been greatly improved. The flowers are borne on long wiry stems in many beautiful colors. An exceptional garden plant and indispensable for cutting. Sow outdoors in May. Keep the seed pods clipped and the plants will bloom much longer. 12 to 18 in.

Grandiflora Mixed. Our latest special mixture and we are sure the delicate soft colors will be admired by all our friends. ¼ oz., 15c; pkt., 10c.

Nasturtiums (A)

For ease of culture, duration of bloom, brilliancy of coloring and general excellence, nothing excels them. All they need is a moderately good soil, in a well-drained sunny position, and within a few weeks from the time they are sown until hard frost comes there is an endless profusion of blossoms.

Dwarf, Mixed. Oz., 15c; pkt., 10c.

Tall, Mixed. Oz., 15c; pkt., 10c.

Scarlet Gleam. Plain petaled and deep throated. This is a sweet scented variety similar to Golden Gleam. Oz., 20c; pkt., 10c.

Golden Gleam. An attractive, double-flowered, sweet-scented variety adapted to culture as a bedding or pot plant. Also valuable for cut flowers. ¼ lb., 30c; oz., 10c.

Double Glorious Gleam Hybrids. These hybrids are a collection of gorgeously colored, large, well formed flowers of such dazzling beauty and colors that were never dreamed of before in a double Nasturtium. Mixed colors. Oz., 15c; pkt., 10c.



Golden Gleam Nasturtiums

Pyrethrum (P) (PAINTED DAISY)

One of the most valuable of our early Summer flowers. Charming colors and wonderful lasting properties as a cut flower. Flowers in May and June and frequently in August and September; in all shades of rose and pink. Height 1 to 2 feet.

Roseum. Single mixed. Oz., 40c; pkt., 10c.

Petunias (A)

For freedom of bloom, variety of color and effectiveness these have no equal. If only a little care is bestowed upon them, they will produce their handsome, sweet-scented flowers in their delicate and gorgeous colors throughout the whole summer and bloom profusely until killed by hard frosts.

The Petunia loves a rich soil and thrives best in a sunny location. Pinch back freely. This causes the plants to branch out and spread, shading the ground, thereby helping to conserve the moisture. Keep the faded flowers clipped.

Single Giant Flowering Varieties

The flowers of this strain average five to seven inches across and are wonderful.

Giants of California Mixed. The flowers are very large and the colors embrace every conceivable shade of crimson, white, violet, lavender, etc. Pkt., 350 seeds, 25c.

Balcony or Trailing. (15 in.). To droop over the edge of a window box or to overhang a terrace, these are the best Petunias to select. In their several colors the single flowers are very gay either alone or in combination.

Balcony Black Prince. Deep velvety, mahogany-red, black throat. $\frac{1}{4}$ oz., \$1.70; $\frac{1}{8}$ oz., \$1.00; pkt., 25c.

Balcony Blue. Deep violet-blue. $\frac{1}{4}$ oz., \$1.00; pkt., 15c.

Balcony Rose. Vivid rosy pink. $\frac{1}{4}$ oz., 75c; pkt., 15c.

Balcony Mixed. Several colors. $\frac{1}{4}$ oz., 80c; pkt., 15c.

Double Large Flowering Varieties

Mixture of Double Petunias. This is a mixture of the best large flowering and fringed double Petunias. Seed is saved from plants grown in pots, carefully pollenized and will produce grand flowers. Of course, every one knows only a certain percentage of double flowers may be expected from seed, but our mixture will produce from 20 to 30 per cent of doubles, while the remainder will be choice, large single flowers. The weaker seedlings should be carefully saved, as those invariably produce the finest double flowers. Pkt., 200 seeds, 50c.

Special Mixture of Dwarf Small Flowering Varieties includes all the varieties listed and many others and will be a revelation to those who plant a packet in furnishing an unending supply of flowers in a most bewildering combination of colors as long as the summer lasts. $\frac{1}{4}$ oz., 60c; pkt., 10c.

Celestial Rose An improvement on the Rosy Morn. More compact in growth and deeper in color. A beautiful rich satiny rose. $\frac{1}{8}$ oz., 75c; $\frac{1}{4}$ oz., \$1.25; pkt., 25c.

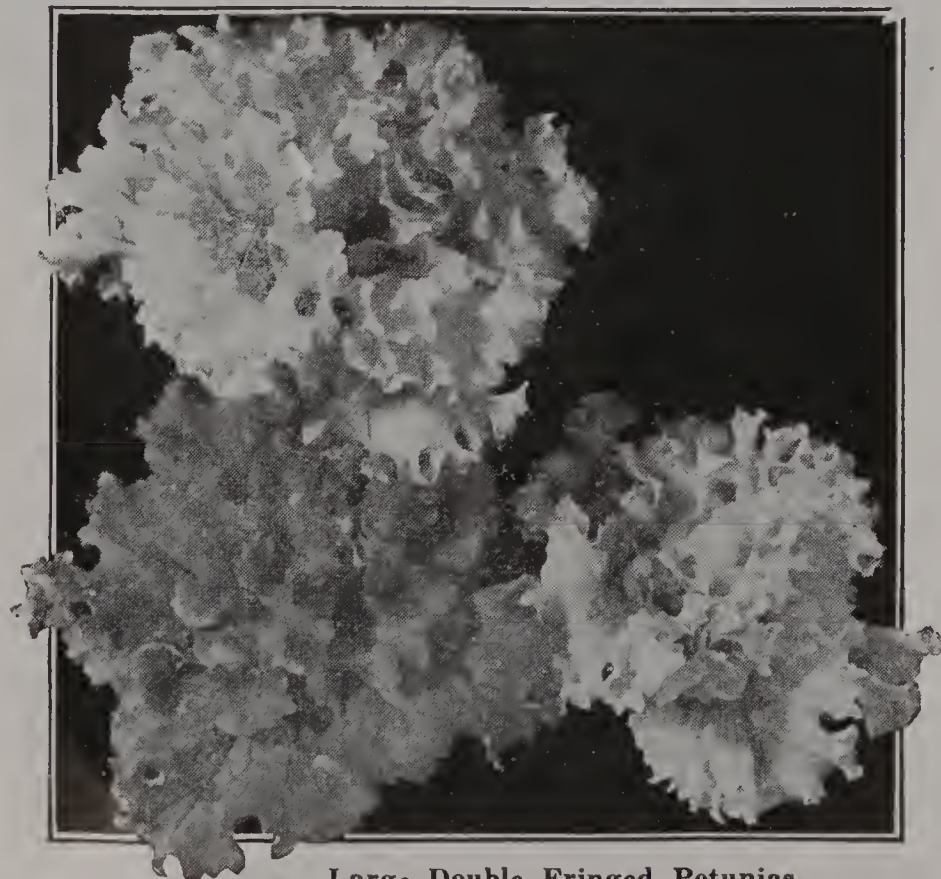


Rosy Morn Petunia

Rosy Morn. The plants are bushy and compact, flowers of medium size, produced in great abundance the entire Summer and Fall; are of a most pleasing clear pink, contrasted by a broad white throat. A splendid sort for porch boxes, pots and beds. Oz., \$2.40; $\frac{1}{4}$ oz., 70c; pkt., 25c.

Royal Purple. Flowers of extraordinary size, averaging 3 to 4 inches across. Superb single flowering of a rich velvety color, so much in demand for hanging baskets, porch boxes, etc. Pkt., 25c.

Rose of Heaven. Select rich rose. $\frac{1}{4}$ oz., \$1.00; pkt. 10c.



Large Double Fringed Petunias



Fluffy Ruffled Giants



Garden Pinks

Pinks (P) (DIANTHUS)

Double. Selection of the best double Pinks in cultivation. Flowers ranging in color through all the brightest and most brilliant shades. $\frac{1}{4}$ oz., 40c; pkt., 10c.

Phlox (A)

The annual Phloxes are dazzling in effect, particularly so when sown in masses or ribbon beds of contrasting colors. Few flowers are so easy to grow from seed, so pretty and compact in habit, so quick to bloom, or give such a brilliant display of color for so little cost or care.

Phlox Drummondii. Unsurpassed for variety of colors. Flowers are smaller than those of the large flowering varieties. Mixed. $\frac{1}{4}$ oz., 25c; oz., 90c; pkt., 10c.

Phlox (P)

Decussata. Hardy herbaceous perennial and quite distinct from the Phlox Drummondii offered above, which is an annual. For best results seed should be sown in the autumn. Finest Mixed. $\frac{1}{4}$ oz., 40c; oz., \$1.40; pkt., 10c.



Oriental Poppies

Oriental Poppies (P)

These should be sown in early Spring in the open ground as soon as it is fit to work. The plants disappear during July and August appearing again as soon as the weather gets cool. It is well to mark the place with a stick so the roots will not be disturbed during the resting period. When the Fall growth starts they should be transplanted to their permanent flowering quarters. For permanent beds they are unequalled. Flowers of immense size, 6 inches and over, of many novel colors.

Hybrids, New Mixture. $\frac{1}{4}$ oz., 60c; pkt., 10c.



Phlox Drummondii

Poppies (A)

Should be sown as early in the spring as possible, where they are to remain, as they will not stand transplanting. Sow very thinly; they must not stand nearer than 5 or 6 inches apart if you wish best results.

Ryburgh Hybrid. The flowers are double and resemble a giant carnation, with flat petals overlapping like a double begonia. The colors embrace all shades of pink, salmon, orange, etc.; all self colors. Mixed. $\frac{1}{4}$ oz., 25c; pkt., 10c.

Double Poppies. Special mixture as to variety as well as colors. Oz., 15c; pkt., 10c.

Shirley. These have beautiful satiny flowers of various colors, all with white centers, which makes the plants very attractive. Foliage is hairy and finely cut. Beautiful shades in delicate tints of rose, apricot, salmon-pink and blush to glowing crimson with a sprinkling of blues. Oz., 30c; pkt., 10c.

Single Poppy. Special mixture. Varied assortment and colors. Oz., 25c; pkt., 10c.

Pansies (B)

They like a cool, moist soil and protection from the wind as well as the noon-day sun. Seed should be sown in the house and transplanted when danger of frost is over. For large flowers, early in the spring, the seed should be sown in August or September and the plants protected with a cold frame during the winter. May also be sown out-of-doors in the spring for late summer and fall flowers.

Improved Swiss Giants. The flowers are of gigantic size, perfectly round, fine substance of flower and good form of plant. They bloom early in the spring, continuing in flower all summer until late in the fall. $\frac{1}{8}$ oz., \$1.00; $\frac{1}{4}$ oz., \$1.80; oz., \$6.00.

Giant Mixture. Donovan strain. Flowers very large, and great diversity of colors. This mixture contains all the good ones. Oz., \$5.00; pkt., 10c.



Pansies



Portulaca—Rose Moss

Portulaca (A) (ROSE MOSS)

This plant will grow and bloom profusely in dry hot situations, where almost any other plant would soon die. Easily transplanted. In sowing mix the seed with dry sand to insure an even distribution. Sow in May when the ground is thoroughly warmed, and soon the loveliest of floral carpets will appear. Double Best Mixture. $\frac{1}{4}$ oz., 60c; pkt., 10c. Single Mixed. Oz., 40c; pkt., 10c.



Salpiglossis

Salpiglossis (A)

Undoubtedly one of the most attractive annuals and should be in every garden. The blossoms are tube shaped, much like a Petunia but rivaling the latter in the beautiful colors displayed. Nearly every flower is veined with a glint of gold. Flowers are large and last well in water, really better than when on the plants.

Large Flowering Mixed. $\frac{1}{4}$ oz., 30c; pkt., 10c.

Salvia (A) (FLOWERING SAGE)

A hedge or bed of Salvias is a blaze of color during late Summer and Fall, bloom in spikes and continuing to bloom until killed by hard frosts. Seed should be started indoors, sow about $\frac{1}{4}$ inch deep; transplant when the soil has become well warmed, about 12 to 18 inches apart.



Salvia, Fireball

Splendens. 2½ ft. The well known variety, fiery scarlet. Oz., \$2.00; $\frac{1}{4}$ oz., 60c; pkt., 10.

Fireball. 1½ ft. The bushy plant is covered with a great number of flower spikes of the most fiery scarlet. The plants branch freely, the side shoots often producing 4 to 6 spikes. Oz., \$2.00; $\frac{1}{4}$ oz., 60c; pkt., 10c.

Scarlet Runner (A)

A very rapid grower, bearing large sprays of bright scarlet pea-like flowers from early Summer to late Fall. Pkt., 10c.

Shasta Daisy (P)

(CHRYSANTHEMUM
LEUCANTHEMUM)

Grows very bushy, bearing all summer a profusion of immense white flowers on long stems. $\frac{1}{4}$ oz., 30c; pkt., 10c.



Shasta Daisies

Rust-Proof Snapdragon (A) (ANTIRRHINUM)

For gorgeous coloring few flowers can match Snapdragons. The flowers are of very large size, very fragrant, and are produced on immense long spikes, which render them extremely well adapted for cut flowers.

Dwarf Mixed. $\frac{1}{4}$ oz., 50c; pkt., 10c.

Tall Mixed. $\frac{1}{4}$ oz., 40c; oz., \$1.20; pkt., 10c.



Snapdragon

Stocks (A)

They last a long time in bloom, are beautiful, fragrant and satisfactory. May be sown in the open ground, or in the hotbed or cold frame, but if transplanted let this be done when the plants are small. Transplant 1 foot apart.

Ten Weeks Large Flowering. The favorite sort for bedding. Grows about 1 ft. high. Mixed, all colors, $\frac{1}{4}$ oz., 50c; pkt., 10c.

Giant Perfection or Cut-and-Come-Again. Useful for outdoor bedding as well as for pots or cut flowers. They throw out numerous side branches, all bearing double, fragrant flowers. Height 18 in. Mixed. $\frac{1}{8}$ oz., 60c; $\frac{1}{4}$ oz., \$1.00; pkt., 10c.

Sunflower (A) (HELIANTHUS)

Of easiest culture. Suitable for backgrounds, screens, and to plant among shrubbery. It blooms from June till frost. 3 to 6 feet.

Double Chrysanthemum-Flowered. Large, golden yellow flowers, resembling a chrysanthemum. Oz., 30c; pkt., 10c.



Sweet William

Strawflower (A) (HELICHRYSUM)

An ornament to the garden when growing, and are prized everywhere for the Winter decoration of vases, and for durable bouquets. Flowers intended for drying should be gathered when partially unfolded and suspended with their heads downward in a cool place. Mixed, all colors. Oz., 50c; pkt., 10c.

Sweet William (P)

This sturdy, reliable old-fashioned favorite is still a source of delight in the garden of today. Seed may be sown at any time from Spring to midsummer. The charm of the great trusses of lovely color seems to be lost when it is planted as a mixture in masses. It is best if you give slight protection during the Winter. It likes warm, rich soil. 2 ft.

Single, Finest Mixed. A very choice assortment of all the best single flowered varieties. Oz., 50c; pkt., 10c.

Double Mixed. This mixture you will find of superior quality, containing all colors and shades. $\frac{1}{4}$ oz., 40c; pkt., 10c.

Double Early Flowering, Dwarf Mixed. A dwarf variety ideally adapted for early flowering and for the perennial border as well as pot plants. $\frac{1}{4}$ oz., 40c; oz., \$1.40; pkt., 10c.



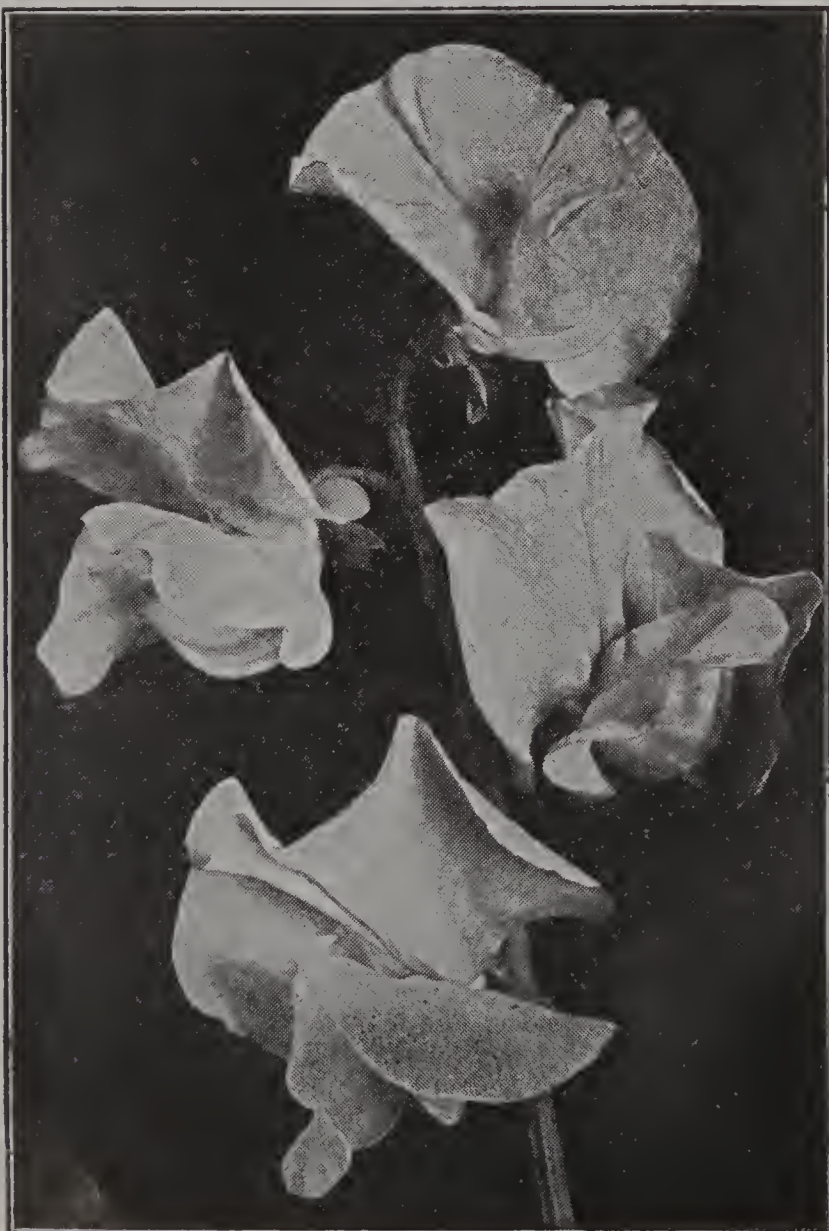
Ten Weeks Stocks

Beautiful Sweet Peas

To grow Sweet Peas successfully it is necessary to plant EARLY and give plenty of moisture. They should go in the ground as soon as the ground can be worked and should be planted six inches deep, being covered at first with only two inches of soil, the trench being filled as the plants grow. It is best to soak the seeds for several hours before they are planted. If this plan of planting early is followed, and if the Sweet Peas are kept mulched with peat moss, lawn clippings or else watered abundantly, they will certainly give a fine crop of lovely flowers held in admiration by every flower lover. The mixture we give you below will give you color in profusion and is well worth your consideration.

Superb Spencer Mixed

A great many people prefer to grow Sweet Peas in the mixed colors. Our superb Spencer Mixture is made up of all the best varieties obtainable. The greatest care is taken to insure a well balanced range of colors and worthy of a place in any garden. Pkt., 10c; oz., 15c; $\frac{1}{4}$ lb., 50c; 1 lb., \$1.40, postpaid.



Gigantic



Fluffy
Ruffles

Summer Flowering Spencer Varieties

We give you below the best of the Spencer varieties in a range of individual colors for those who want to work out a color scheme. Each one is a rare beauty and worthy of a place in your garden.

Ambition. Rich deep lavender.

Fluffy Ruffles. Rich rose-shaded salmon and cream duplexed.

Gigantic. Largest and best of the whites.

Mary Pickford. Dainty cream-pink, suffused salmon.

Mrs. Tom Jones. Bright blue.

Crimson King. Rich deep clear crimson.

Any of the above: Oz., 20c; $\frac{1}{4}$ lb., 50c; pkt., 10c.

Perennial Sweet Pea (*Lathyrus latifolius*). Oz., \$1.00; pkt., 10c.



Giant Dahlia-Flowered Zinnia.

Verbena (A)

One of our trustworthy garden companions. Of trailing habit. The foliage makes a perfect carpet and a fine background for the broad, flat flower heads of many brilliant colors. Sow in boxes in the house and transplant when the seedlings are an inch high, and set outside after danger of frost is past in a warm, sunny spot.

Mammoth Purple. $\frac{1}{4}$ oz., 40c; pkt., 10c.

Mammoth Mixed. Producing in handsome umbels flowers of large size in beautiful shades of white, rose, scarlet, blue and purple. $\frac{1}{4}$ oz., 70c; oz., \$2.40; pkt., 10c.

Wild Cucumber (A)**(ECHINO CYSTIS LOBATA)**

This is the quickest growing climber in our list. It is thickly dotted over with pretty, white, fragrant flowers, followed by an abundance of ornamental and prickly seed pods. $\frac{1}{4}$ lb., 75c; oz., 25c; pkt., 10c.



Zinnia, Fantasy

Zinnias (A)

Splendid hardy annuals making a brilliant profusion of color and succeeding well in any soil. They will retain their beauty for several weeks and bloom until frost.

Fantasy. This new Fantasy mixture with rounded flowers is composed of a mass of shaggy, raylike petals which give a delicate and refined appearance to the medium sized double flowers. They lend themselves gracefully to flower arrangements. The color range includes the brightest shades of red and orange, as well as the popular pastel pinks and cream. $\frac{1}{4}$ oz., 35c; oz., \$1.00; trade packet, 25c.

Colossal or Giant Flowered. The flowers are gigantic in size; thickly set with velvety petals. The plants are vigorous, branching freely and are fine for cutting. Mixed colors. Oz., 60c; pkt., 10c.

Giant Dahlia Flowered. In formation the broad petals are closely imbricated, sometimes seeming almost to be piled one upon the other. The flowers often measure 4 inches in depth and 6 to 8 inches in diameter. In general appearance the flowers compare with the Show Dahlias. Mixed colors. $\frac{1}{2}$ oz., 60c; oz., \$1.00; pkt., 10c.

Lilliput Double, Mixed, or "Pompon." 12 in. The plants form handsome little bushes and fairly bristle with tiny, short-stemmed, very double flowers hardly exceeding a daisy flower in size. They are pretty plants. Oz., 80c; pkt., 10c.

Double Mammoth Mixed. All the varieties listed here and others in one mixture. Oz., 60c; pkt., 10c.



Verbena

FIELD SEEDS



A Big Yield of Grimm Alfalfa

Alfalfa and Clovers

The acreage seeded to Alfalfa in Michigan is increasing every year. All of our seed is northern grown, therefore, it is best adapted to our climate.

GRIMM ALFALFA was brought to the United States by a Mr. Grimm. He settled in Minnesota, and the seed was sown and produced exceptionally hardy plants, and when it was eventually recognized as a superior strain, it became known as Grimm Alfalfa. From its adopted home it rapidly spread over the Northwest, and its superiority is now so generally proven that it is rapidly superseding the Common Alfalfa. We have never known a failure in Michigan of true Grimm. Our Grimm Alfalfa, which is scarified seed, is grown by reputable organizations, and certified by the proper State officers in the state where grown, and guaranteed by them. Write for prices.

ALFALFA, Common Grown in Utah. The fields from which this seed was grown were carefully inspected. The seed is bright and plump, a beautiful golden color; free from dodder and all foul seeds. Scarified and carefully tested for germination. The high altitude of the mountain states insures hardiness. Write for prices.

Hardigan Alfalfa Was developed in Michigan and has rapidly become one of the leading varieties because of its hardiness and heavy yielding ability. For the past four years it has been the outstanding variety in comparative tests in trials at the Michigan Experimental Station at East Lansing. The only reason Hardigan Alfalfa has not been grown more extensively was the lack of sufficient supply of seed. Write for prices.

Medium Red or June Clover By far the most important of all Clovers for practical purposes. It is a perennial, and grows about two feet high; very valuable for plowing under to enrich the soil, adding humus and nitrogen. Sow in spring or fall, eight to twelve pounds per acre, if used without other grasses.

Mammoth or Large Red Clover Mammoth Clover is quite distinct from medium, growing to nearly twice its size; is coarser and a little later. It can be grown successfully on poorer soil than Medium Clover. It is used extensively for building up worn-out land. Sown alone, use eight to twelve pounds per acre.

Alsike Clover A perennial and the most hardy of all Clovers. It prefers damp, loamy soil. It is extremely leafy, making hay of a fine texture. Does not readily winter-kill, and is valuable to sow with other Clovers and grasses, as it increases the yield of hay. It is the best Clover for moist soil. Sow either in spring or fall, about six pounds per acre, when sown alone.

White Blossom Sweet Clover Once considered a noxious weed; now nearly equal in value to alfalfa. White Sweet Clover is a biennial, and does not last so long as its cousin, alfalfa, but it has a great mission. In pasture it will produce a greater flow of milk than even alfalfa, and as much feed. Cattle are less liable to bloat. Stock soon learn to like the hay, and even prefer it to alfalfa. Write for prices.

INOCULATE ALL LEGUME SEEDS WITH

NITRAGIN

OVER FORTY YEARS OF SERVICE

When ordering, Always state name of seed.

ALFALFA, all Clovers

Size	Retail
1/2 bu. each.....	.30
1 bu. each.....	.50
2 1/2 bu. each.....	1.00

PEAS (All Varieties)

VETCHES (All Varieties)

1/2 bu. each.....	.25
1 bu. each.....	.40
1 1/3 bu. each.....	.60
5 bu. each.....	1.70
12 1/2 bu. each.....	4.00

BEANS

String, Wax, Kidney

1/2 bu. each.....	.25
1 bu. each.....	.40
5 bu. each.....	1.70

LESPEDeza

Size	Retail
1 bu. each.....	.30
2 bu. each.....	.50
5 bu. each.....	1.00

SOYBEANS, LIMA BEANS, COW PEAS, PEANUTS

1 bu. each.....	.30
2 bu. each.....	.50
5 bu. each.....	1.00
10 bu. each.....	1.40
25 bu. each.....	2.90

GARDEN SIZE

Garden Peas & Beans Sweet Peas & Lupines

Enough for 6 lbs. seed
Retail Price.....10c each

Certified SEED CORN

Early Yellow Varieties—Michigan Grown

These varieties are adapted for Michigan as they are early maturing and heavy yielding which will insure you high quality corn. Seeds grown too far south are generally a risk in Michigan climate. Our northern grown seeds are better adapted to this climate and growers who expect to grow corn at a profit will realize the importance of good seed corn such as we offer.

Certified Golden Glow is an early maturing yellow dent corn. The stalks grow 6 to 8 ft. tall and bear ears of deep yellow, 7 to 8 in. long. The kernels are nearly square and the cobs a deep red. Ripens normally in 90 days. This seed is grown in Michigan and certified by the Michigan Crop Improvement Association.

Certified Pickett's Yellow Dent. A reliable 90-day corn. The ears are long and somewhat slender with a small dark red cob. The kernels are slightly rough and rather deep. This is also Michigan grown seed and certified by the Michigan Crop Improvement Association.

Standard Yellow Varieties

Early Murdock—90 days.

Golden Glow—90 days.

Early White Cap Yellow Dent—100 days.

Pickett's Yellow Dent—90 days.

MAC Yellow Dent—90 days.

Pride of the North—95-100 days.

Longfellow Flint or Smut Nose—95-100 days.

All the above varieties have been grown with success in Michigan, being early and adapted to the soil and climatic conditions. They will generally mature before frost, and we recommend any one of them.

HYBRID CORN INCREASES THE YIELD

We will have all the varieties that are usually adapted to this area, such as:

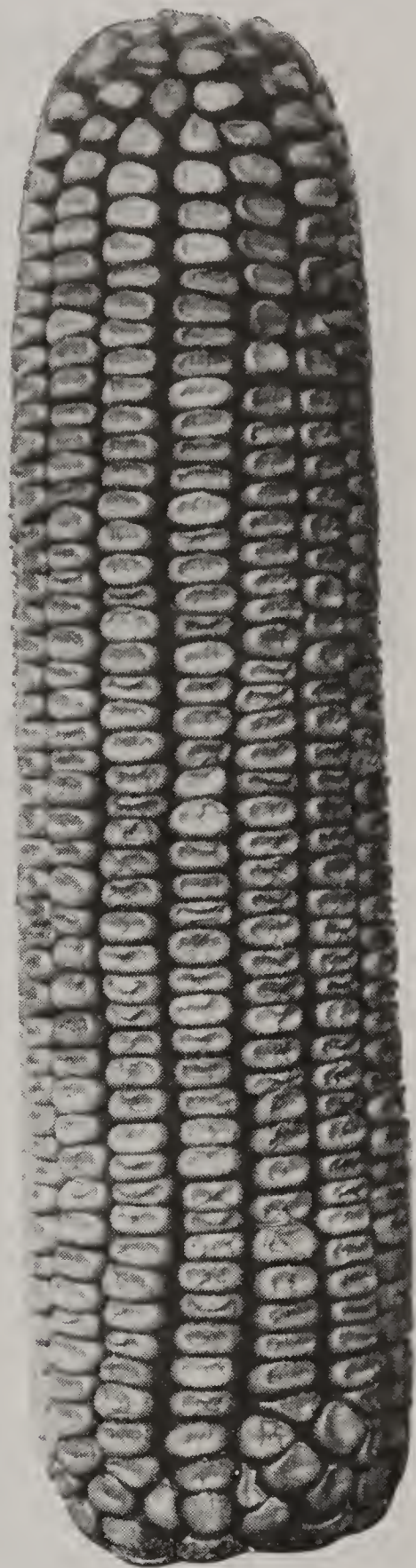
Michigan No. 1218

Wisconsin No. 525

Minnesota No. 402

Fodder and Ensilage Corn

Dry Fodder Corn is the most satisfactory substitute for hay. It nearly, if not quite, equals in feeding value timothy and clover. All stock eat it greedily and thrive on it.



Leaming Fodder Corn

This variety is preferred by most dairymen for filling silos, for the reason that the corn matures the large ears (in an ordinary season it will ripen), and gives more grain in the ensilage. Stalks very large and leafy, and grows an immense amount of forage to the acre. It requires from one peck to one-half bushel of seed per acre, drilled in rows one way.

Red Cob Ensilage

A gigantic Southern white Corn, producing immensely large ears, rarely maturing in this latitude. The stalks grow from 12 to 15 feet in height, with long, broad leaves from the ground to the tassel. Stalks very thick at the butt, juicy, tender and as sweet as sugar corn; and all stock eat it with relish. Many dairymen prefer it for the silo, for the reason that it produces such an enormous amount of silage (from 15 to 25 tons per acre). It is especially valuable for the dry fodder when cut and kept in the shock until fed. It will produce a good crop of forage, even when sown as late as July.

Eureka Ensilage Corn

Will produce more tons of Silo Corn per acre than even Red Cob Ensilage Corn. Stalks will grow 12 to 15 feet in height, with broad leaves from the ground up. Each stalk will bear from one to three long ears. Very rapid grower and can either be planted in hills or in drill rows.



FIELD AND FARM SEEDS



Sudan Grass

Timothy

The most important of all grasses for hay, and is adapted to a wider range of conditions than any other variety of grass. It is the hardiest of all grasses and excels in feeding value. Sow early in the spring or fall, 10 to 12 pounds per acre if sown alone; less if mixed with other grasses.

Orchard Grass

This grass grows well in the shade, is rather rank in growth and a stooling variety. Stands the drought remarkably well. Valuable for pasture or orchard. Does well in wet or poor ground and produces large crops of hay.

Sudan Grass

A tall annual grass reaching the height of 7 to 9 feet when planted in rows and cultivated, and 4 to 6 feet when sown broadcast. The hay is greatly relished by all stock, and has exceptionally high feeding value. Is adapted to most soils.

Reed Canary Grass

Reed Canary Grass is rapidly becoming popular for the reason that it can be grown in soil too wet for other crops. It is a heavy yielder and after well established may be cut two and three times within one season. It is a hardy perennial and will live until it is broken up, and will not spread to cultivated lands. When possible, the land should be plowed in the fall and seed may be sown in October on land that may be too wet in the spring. It is very slow to germinate, therefore will remain dormant until spring. In the spring, sow as early as possible to get ahead of the weeds or late in June or July. Best results are obtained by broadcasting at the rate of 5 to 6 lbs. per acre or drill in rows 16 to 18 inches apart. Under favorable conditions seeds will germinate in about 35 or 40 days.

Certified Spartan Barley

A heavy yielder, smooth bearded type, two rowed. It has been grown in Michigan for the past six years and is becoming very popular. The straw is vigorous and of good length, also does very well on lighter soils. The kernels are plump and nearly twice the size of those of the six rowed barley. It will ripen a week or ten days earlier than other varieties and, for the best results, it should stand until thoroughly ripened. This seed certified by the Michigan Crop Improvement Association.

Brome Grass (*Bromus Inermis*)

Very strong, quick growth making two crops of very abundant pasture. It prevents washing on the banks of streams. Good in very sandy soils because of its strong spreading root system. Not a lawn grass. Sow in the spring, 2 bushels per acre. (14 lbs. to a bushel).

Korean Lespedeza (Japan Clover)

The earliest of the annual Lespedeza and especially adapted for Michigan climate or similar latitudes. It comes up early in the spring and grows rapidly, furnishing much earlier pasture than any other variety. The leaves are larger but more rounded than Common Lespedeza, commonly grown in the South. It begins flowering in July and is a wonderful soil builder as it can be grown on the poorest land. Korean is especially suited for a short growing season. The seed ripens in September.

Amber Cane

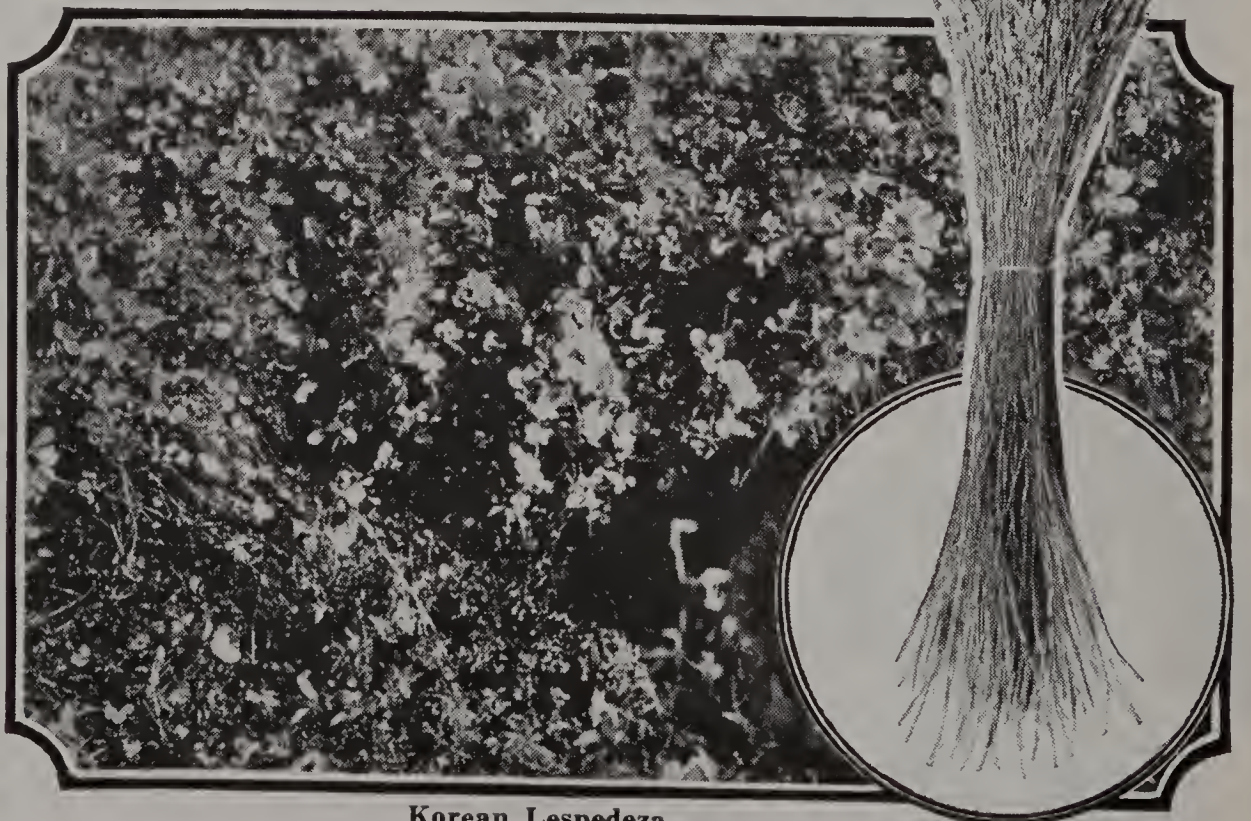
The earliest Non-Saccharine type in cultivation. Stalks tall and slim. Most suitable for hay as it matures very quickly.

Soy Beans

When clovers fail it is necessary to have an emergency hay crop which will make hay the same season it is planted. For this purpose Soy Beans are better than the Millet. Soy Beans should be planted in May or June. They withstand drought remarkably well. For hay, silage or green manure crops, plant 1 bushel to an acre if drilled, if planted with a corn planter $\frac{1}{2}$ bushel is sufficient. "Ito San" is one of the best varieties as it matures in 100 days. The plant stands erect, growing 2 to 2½ feet high and is a good yielder. The "Manchu" is the most popular, however, in all northern sections. It is early maturing and is of a stout, bushy growth, standing erect. Excellent for hay and forage crops.

Certified Wolverine Oats

Michigan grown. These oats are medium early, strong and vigorous growers, heavy yielders. The head is full and loose with the seeds evenly distributed around the stem. The straw is of medium height and stiff enough so that they seldom lodge. The grain is large, white, rather blunt and very plump. This variety is grown more extensively in Michigan than any other because it has given such uniformly good yields.



Korean Lespedeza

FIELD AND FARM SEEDS—Continued

Millet

A few acres of Millet will yield half again as much hay per acre as either clover or timothy, besides it has a greater feeding value and any stock raiser or dairy farmer would be well repaid. When spring weather is unfavorable, so that other crops fail, or the season is late and wet so that corn will not mature, Millet is a sure crop. Millet should be sowed 3 pecks per acre, from May to August.

GERMAN OR GOLDEN MILLET. Grows very rank and is one of the best varieties for hay and fodder. While the hay may seem coarse, nevertheless, it is quite tender if it is cut when in full bloom and even hogs will eat the cured hay quite greedily. A yield of 5 tons per acre is nothing unusual. German Millet will withstand dry weather remarkably well.

HUNGARIAN MILLET. Is preferred by some to Golden Millet as it is about a week earlier. Does not grow as large but the hay is more desirable because it is not so coarse. Very nourishing and a wonderful milk producer. A good variety for moist soils.

Dwarf Essex Rape

Under favorable conditions Dwarf Essex Rape is ready for pasture in six weeks from the time of sowing. One acre of good rape will carry a flock of a dozen sheep for two months. Recent experiments have shown rape to be the means of producing pork at the lowest cost, even less than alfalfa. Rape is also the forage that can be sown with the least effort. Seeded in corn at the last cultivation to be hogged down, furnishes one of the greatest money-making methods known to the progressive farmer today. Sow rape in corn at the rate of 4 lbs. per acre. When the corn is harvested and cut, then turn the pigs into the field in the Fall.

Sand Vetch

Sand or Hairy Vetch shares with Sweet Clover the honor of giving the best results in restoring fertility to wornout land or making poor, sandy soils productive. Sand Vetch has no equal as a cover crop. It can be sown in the cornfield just after the last cultivation, and it will make a mass of green stalks and leaves to plow under about the middle of May; or it may be sown after harvesting oats and plowed for corn the next Spring. Hay made from Sand Vetch is about three per cent higher in protein than Alfalfa hay, and is more eagerly eaten by stock. When sown with oats or any Spring grain, it will come on after crop is harvested and make splendid Fall pasture, and can be plowed under the next Spring for corn or potatoes. Sow from 30 to 40 pounds per acre.

Silverhull Buckwheat

A standard variety, largely grown, and gives excellent satisfaction. Unsurpassed as a catch crop when a late season has made it impossible to follow out your first plans or when other crops fail. Buckwheat is a valuable crop for those parts of the farm which always seem to be left unplanted at the close of the season. It is generally sown in July and will fill up the vacant plots at a time when all other planting is past. Can be sown after a crop of Winter Wheat or Rye and make a second crop. Use one-half to three-quarters bushel of seed to an acre.

Canadian Field Peas

Valuable for northern climates for cattle feed and when sown with oats make an excellent hog feed. Should be sown early in April, two bushels to an acre. If sown with oats for hay and fodder sow 1½ to 2 bushels per acre.

Farm Fertilizers

Commercial fertilizers are those which are used for general farm purposes, and are composed of the three elements of plant food, namely Nitrogen, available Phosphoric acid and Potash K_2O and are mixed by the world's largest fertilizer manufacturers in the proper proportions, so as to give your soil the proper available plant food to produce a maximum crop. We handle large quantities of the various analyses every year and will ask that you consult us and get the right fertilizer for your specific needs. Prices will be quoted upon application.

NITRATE OF SODA. In its commercial form contains about 15½% of Nitrogen, equal to about 19½% of Ammonia. As the source of Nitrogen or Ammonia, in home mixed fertilizers Nitrate of Soda is the most desirable, particularly for all quick-growing crops, and when early maturity is desired, and when inclement weather is at hand, or frost, Nitrate of Soda will give maturity before the frost really kills.

SULPHATE OF AMMONIA. Used largely in orchards for practically all kinds of fruit; especially valuable for melons and tomatoes, which thrive better in a slightly acid soil. A form of nitrogen which is coming into general use with fruit men and truck growers. It will take the place of Nitrate of Soda to a certain extent, in so far that it is not so quick acting.

SUPER PHOSPHATE. This comes in four analyses, namely 16%, 20%, 24% and 44% and is used in grain crops and others requiring an excessive amount of Phosphoric acid, which is lacking in Michigan soil and can be applied in large amounts with excellent results.

MURIATE OF POTASH. The best form of Potash for fruit and muck vegetable crops. All root crops draw heavily on the soil for Potash, especially potatoes and onions. Most muck soils are lacking in Potash, and celery will grow a much firmer stalk of far better quality when either a high grade fertilizer, high in Potash, or Muriate of Potash is applied in liberal quantities.

STEAMED BONE MEAL. It is low in Nitrogen, high in Phosphoric acid, which is the best way to apply Phosphoric acid to your soil, as bone phosphate gives excellent results on all crops.

PULVERIZED HEN MANURE. Contains double the plant food value of Pulverized Sheep Manure and is sold as cheaply. Hen Manure is collected mainly from unloading cars in which poultry have been shipped and is dried and finely ground so that it can be evenly applied and not burn vegetation.

PULVERIZED SHEEP MANURE. This is collected from the stock yards, heated to kill weed seeds, finely ground, and forms an excellent fertilizer for lawns, golf courses, garden plots, etc.

SHREDDED CATTLE MANURE. Collected from the stock yards and is finely ground, containing a similar amount of plant food as Pulverized Sheep Manure and is exceedingly good for the humus that it adds to the soil.

LIME. Pulverized Agricultural Limestone is not a fertilizer as it is commonly thought, but is a soil sweetener, and every farmer can insure the constant fertility of his soil by using a little care and "feeding" the soil regularly with the elements needed. One of the most common ailments for lack of fertility in farm land is "ACID SOIL", and it is to correct this condition, to "sweeten" or neutralize acid soil that Pulverized Limestone is used; it has brought bumper crops, money-making crops, on farms that otherwise would be practically worthless. Run down fields where you have been unable to grow alfalfa or clover and where moss, sour grass and thistles thrive, need pulverized limestone.

MANGANESE SULPHATE. Research shows that manganese is essential in the manufacture of the green color in plants, by the aid of which the most important processes of plant growth operate and is lacking in most soils. Manganese Sulphate is added to mineral fertilizers to supplement this plant food element and has been found very beneficial in growing crops.

We handle large quantities of these fertilizers every year, have a large stock at all times and ask that we be given a chance to quote you. Write us for prices.

PLANTER'S GUIDE

Variety	Seed required for 50 ft. of row	Seed required to sow an acre	Seed required to produce a given no. of plants	Distance between rows inches	Distance apart in row inches	Depth of planting inches
Asparagus	1/2 oz.	4 lbs.	1 oz. to 700	14 to 24	3 to 6	1
Beans, Bush	1 lb.	50 to 60 lbs.		24 to 32	2 to 3	1 1/2 to 2
Beans, Pole	1/2 lb.	30 to 35 lbs.		40 to 48	6 to 8	1 1/2 to 2
Beet	1/2 oz.	6 to 8 lbs.		14 to 24	1 to 3	1/2 to 1
Beet, Mangel	1/2 oz.	4 to 5 lbs.		18 to 30	2 to 6	1/2 to 1
Broccoli	1/4 oz.	3 ozs.	1 oz. to 5000	20 to 36	16 to 22	1/2 to 1
Brussels Sprouts	1/4 oz.	3 ozs.	1 oz. to 5000	20 to 36	16 to 22	1/2 to 3/4
Cabbage	1/4 oz.	3 ozs.	1 oz. to 5000	24 to 36	14 to 24	1/2
Cardoon	1/4 oz.	5 ozs.		20 to 32	20 to 30	1/2 to 1
Carrot	1/4 oz.	2 1/2 lbs.		16 to 24	1 to 3	1/2
Cauliflower	1/4 oz.	5 ozs.	1 oz. to 4500	24 to 30	20 to 24	1/2
Celery	1/8 oz.	5 ozs.	1 oz. to 8000	24 to 40	4	1/2
Chicory	1/2 oz.	5 lbs.		20 to 36	2 to 3	1/2 to 1
Collards	1/4 oz.	5 ozs.	1 oz. to 4000	24 to 30	14 to 18	1/2
Corn, Pop	3 ozs.	6 to 8 lbs.		34 to 40	6 to 8	1
Corn, Sweet	6 ozs.	10 to 14 lbs.		34 to 42	5 to 6	1
Corn Salad	2 ozs.	10 to 12 lbs.		14 to 18	3 to 4	3/4
Cress	1 oz.	10 lbs.		12 to 18	2 to 4	1/2
Cucumber	1/2 oz.	2 to 3 lbs.		48 to 60	36 to 48	1/2 to 3/4
Dill	1/2 oz.	5 lbs.		20 to 36	4 to 6	1/2
Egg Plant		6 to 8 ozs.	1 oz. to 2000	24 to 30	18 to 24	1/2
Endive	1/2 oz.	4 to 5 lbs.		18 to 24	8 to 12	3/4
Kale	1/2 oz.	4 to 5 lbs.		24 to 32	18 to 22	1/2
Kohl Rabi	1/4 oz.	4 to 5 lbs.		14 to 24	4 to 6	1/2
Leek	1/4 oz.	4 lbs.		14 to 24	2 to 3	3/4
Lettuce	1/4 oz.	3 to 4 lbs.		12 to 18	4 to 8	3/4
Melon, Musk	1/2 oz.	2 to 3 lbs.		70 to 80	48 to 60	3/4
Melon, Water	1 oz.	4 lbs.		90 to 100	72	3/4
Mustard	1/2 oz.	4 lbs.		14 to 24	4 to 6	1/2
Okra	1 oz.	8 to 10 lbs.		24 to 40	18 to 24	1 to 2
Onion	1/2 oz.	4 to 5 lbs.		18 to 24	3 to 4	3/4
Onion (for sets)		50 to 80 lbs.		12 to 14	Not thinned	3/4
Parsnip	1/2 oz.	3 to 4 lbs.		18 to 24	3 to 4	3/4
Parsley	1/2 oz.	3 to 4 lbs.		12 to 20	4 to 6	3/4
Peas	3/4 lb.	100 to 180 lbs.		24 to 36	1 to 2	1 to 2
Pepper	1/8 oz.	1 to 2 lbs.	1 oz. to 1000	20 to 30	18 to 20	1/2
Pumpkin	2 ozs.	3 to 4 lbs.		95 to 110	60 to 80	3/4
Radish	1/2 oz.	8 to 10 lbs.		12 to 18	1 to 2	3/4
Rhubarb	1/2 oz.	3 lbs.		24 to 42	20 to 24	3/4
Rutabaga	1/2 oz.	2 to 4 lbs.		18 to 24	4 to 7	3/4
Sage	1/2 oz.	4 to 5 lbs.		20 to 24	6 to 10	1/2
Salsify	1 oz.	7 to 8 lbs.		20 to 24	2 to 3	3/4
Sorrel	1/2 oz.	4 to 5 lbs.		12 to 22	2 to 3	1/2
Spinach	1 oz.	10 to 14 lbs.		14 to 18	3 to 5	3/4
Squash, Bush	1/2 oz.	3 to 5 lbs.		42 to 48	42 to 48	3/4
Squash, Vining	2 ozs.	3 lbs.		70 to 90	60 to 90	3/4
Sunflower	2 ozs.	7 to 8 lbs.		50 to 70	10 to 12	1
Tomato		2 to 4 ozs.	1 oz. to 2000	40 to 60	36 to 40	1/2
Tobacco		2 ozs.	1 oz. to 4500	36 to 48	24 to 36	1/2
Turnip	1/2 oz.	2 lbs.		12 to 20	2 to 4	1/2

NUMBER OF PLANTS TO THE ACRE AT GIVEN DISTANCES

Dis. apart	No. plants	Dis. apart	No. plants	Dis. apart	No. plants
12 x 1 in.	522,720	24 x 24 in.	10,890	36 x 36 in.	4,840
12 x 3 in.	174,240	30 x 1 in.	209,088	42 x 12 in.	12,446
12 x 12 in.	43,560	30 x 6 in.	34,848	42 x 24 in.	6,223
16 x 1 in.	392,040	30 x 12 in.	17,424	42 x 36 in.	4,148
18 x 1 in.	348,480	30 x 16 in.	13,068	48 x 12 in.	10,890
18 x 3 in.	116,160	30 x 20 in.	10,454	48 x 18 in.	7,790
18 x 12 in.	29,040	30 x 24 in.	8,712	48 x 24 in.	5,445
18 x 18 in.	19,360	30 x 30 in.	6,970	48 x 30 in.	4,356
20 x 1 in.	313,635	36 x 3 in.	58,080	48 x 36 in.	3,630
20 x 20 in.	15,681	36 x 12 in.	14,520	48 x 48 in.	2,723
24 x 1 in.	261,360	36 x 18 in.	9,680	60 x 36 in.	2,901
24 x 18 in.	15,520	36 x 24 in.	7,260	60 x 48 in.	2,178

Approximate number of feet of row per acre at given distances:

Distance between rows:	18 inches	24 inches	30 inches	36 inches	42 inches	48 inches
Feet of row:	29010	21758	17427	14526	12439	10853

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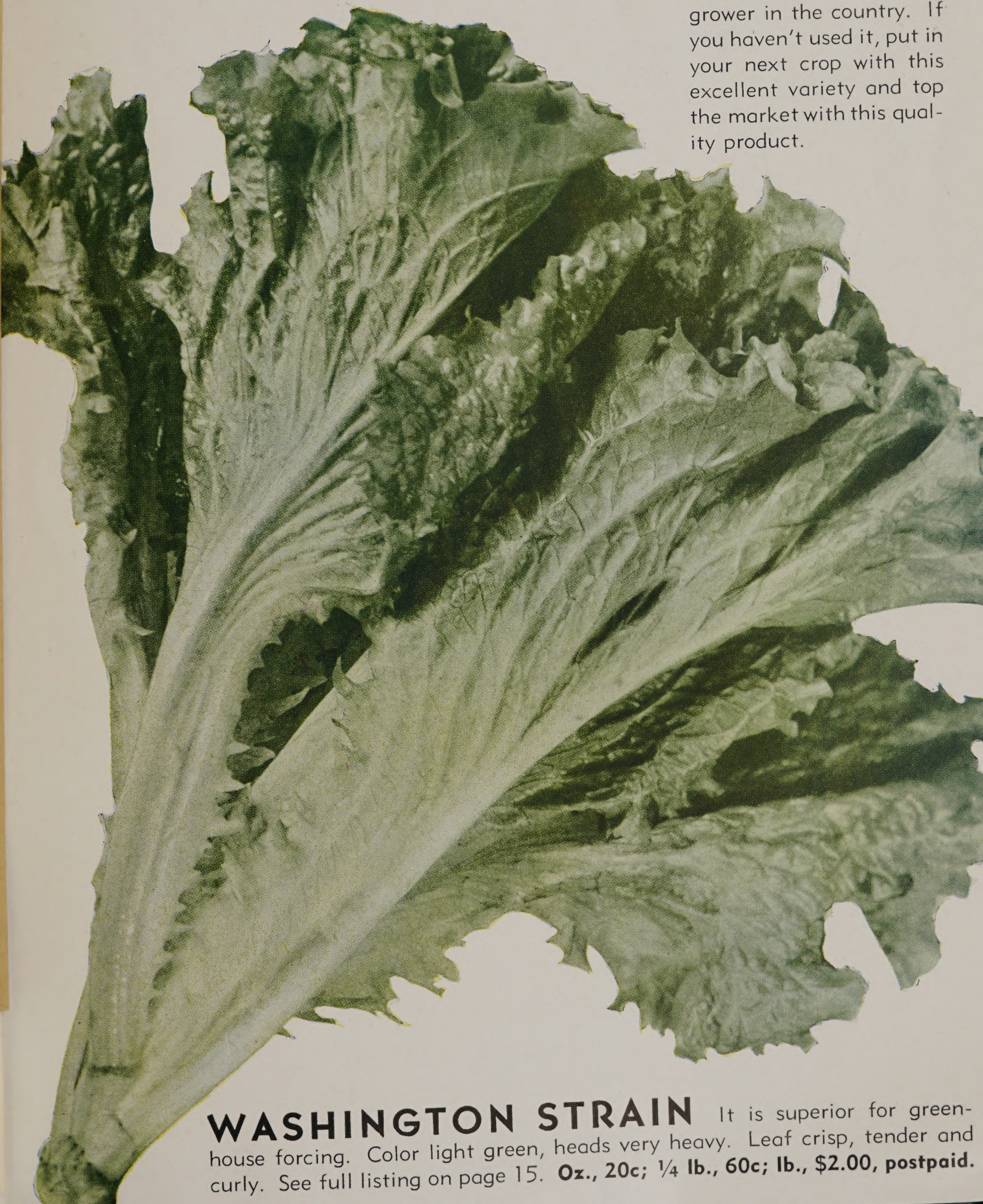
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WASHINGTON STRAIN It is superior for greenhouse forcing. Color light green, heads very heavy. Leaf crisp, tender and curly. See full listing on page 15. **Oz., 20c; 1/4 lb., 60c; lb., \$2.00, postpaid.**

★ *Improved A & C Cucumber*

Average length, 10 inches. Very uniform from stem to blossom end. A vigorous grower, color dark green. This is one of the best and most popular strains in existence. **Oz., 15c; ¼ lb., 45c; 1 lb., \$1.50, postpaid.**

★ *King of the North Pepper*

A late introduction and a winner, similar in type to Ruby King, but decidedly earlier. The plant is of medium size and prolific. The fruit is long, moderately slender, tapering to 3 or 4 points. **Oz., 25c; ¼ lb., 80c; 1 lb., \$3.00, postpaid.**



Hale's Best Melon

Has become one of the most popular Melons for the home and market garden trade. It is fairly early, a good shipper, oval in shape, with heavy netting and fairly prominent ribs. The flesh is a rich deep salmon color with a very fine flavor. **Oz., 10c; ¼ lb., 35c; 1 lb., 1.20, postpaid.**

GRAND RAPIDS GROWERS, Inc.

401-431 Ionia Ave., S. W.

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